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December 5, 2003

FSA Enterprise Architecture FEA-PMO Reference Model Guide and Boilerplate Updates - Final

PEARSON Government Solutions

IBM

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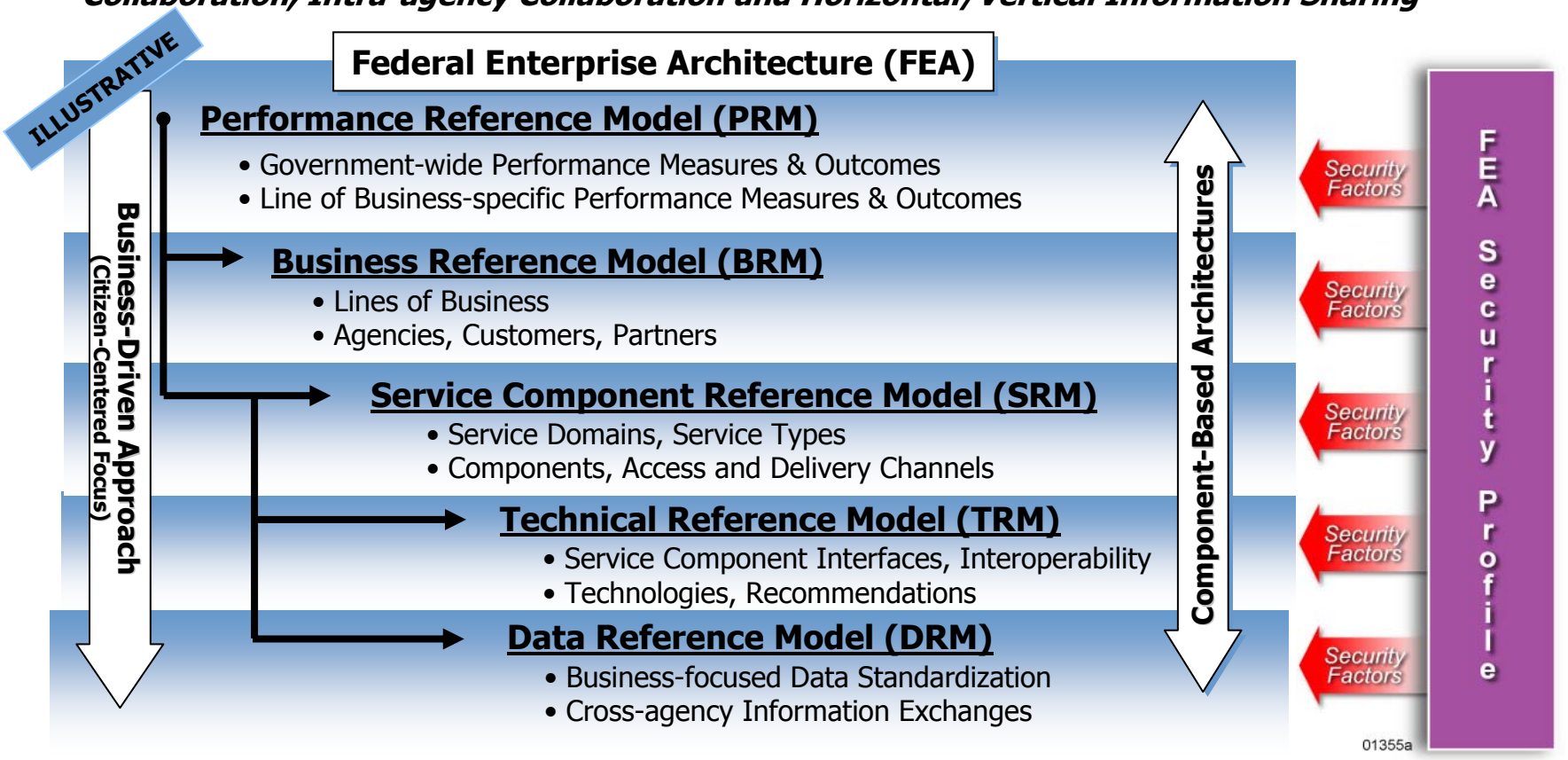
Our review includes the following document versions as published by Federal Enterprise Architecture – Project Management Office (FEA-PMO):

- Additional Guidance on the FEA-Related Requirements in OMB Circular A-11
  - from August 2003 (**file name:** fea_a11_guidance.pdf)
- Business Reference Model Version 2
  - from June 2003 (**file name:** fea_brm_release_document_rev_2.pdf)
- Performance Reference Model Volumes I and II Version 1
  - from September 2003 (**file names:** fea_prm_release_rev_1_vol_1.pdf and fea_prm_release_rev_1_vol_2.pdf)
- Service Reference Model Version 1
  - from June 2003 (**file name:** fea_srm_release_document_rev_1.pdf)
- Technical Reference Model Version 1.1
  - from August 2003 (**file name:** fea_trm_release_document_rev_1.1.pdf)
- Data Reference Model
  - (Not Yet Released by FEA-PMO)
- Security Profile
  - (Not Yet Released by FEA-PMO)

Note: Although the models are guides there are many places of ambiguity and need for agency interpretation. However, the FEA Reference Models allows flexibility on implementation

The Federal Enterprise Architecture (FEA) Consists of a Series of Interrelated Reference Models

This Figure is intended to illustrate how the FEA is Designed to Facilitate Cross-agency Collaboration, Intra-agency Collaboration and Horizontal/Vertical Information Sharing



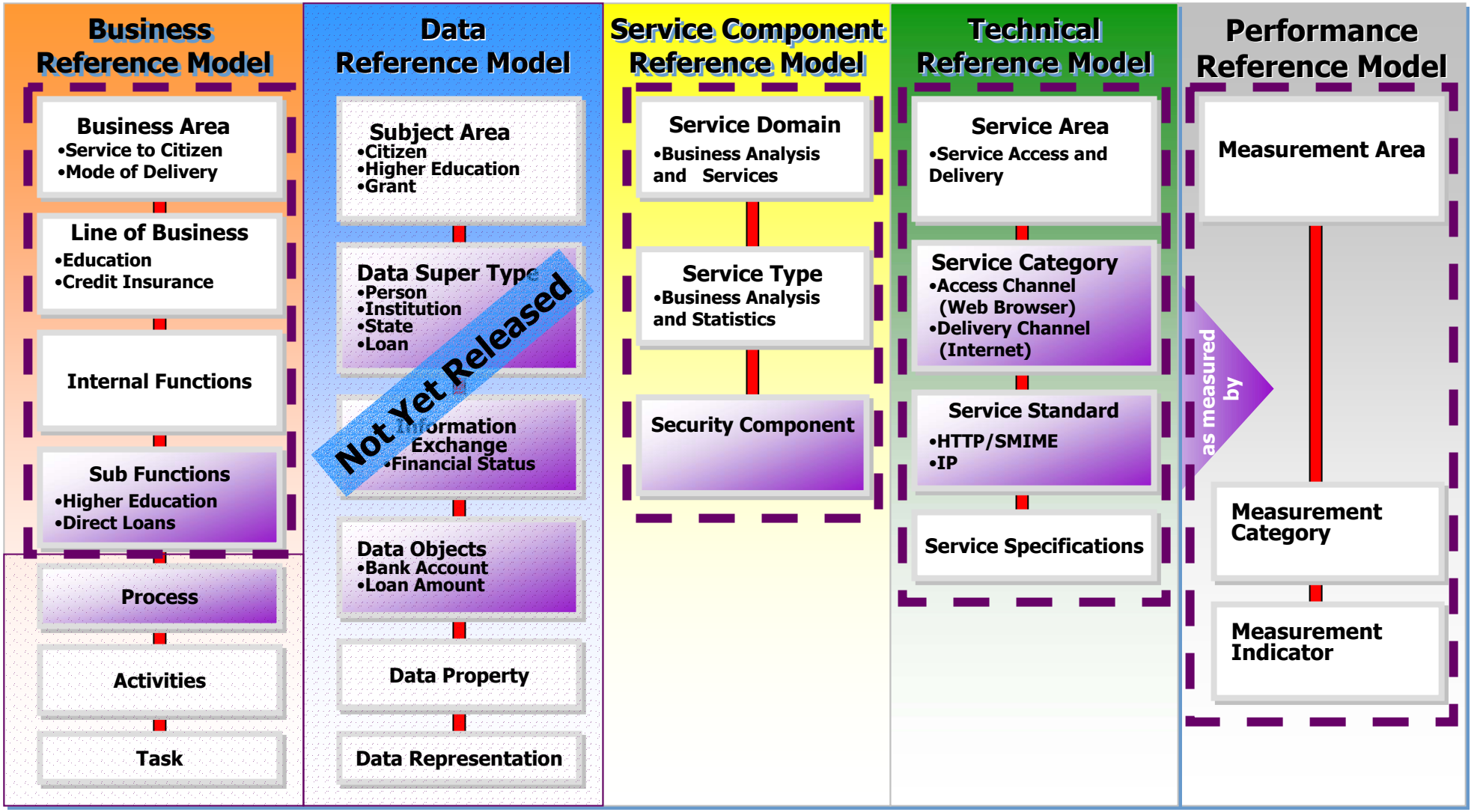
Note: Based on this illustration there is a need for:

- **an additional view of the FEA that addresses and highlights information security and privacy (CIO Council "Terms of Reference"),**
- **an "enterprise view" of the Reference Models, and**
- **an iterative development approach of the inter-relationships of the reference models.**

During FY2006 the FSA Reference Models will facilitate cross-agency collaboration by extending the Popkin repository, creating reports and diagrams useful for several actors/users of the data and finally, horizontal information sharing across government and across the Department of ED (and other ED agencies) and vertically up to the Department of ED as well as throughout FSA. This information sharing will be facilitated with the Popkin repository, web-site publishing and enterprise views of the information.

FEA-PMO has provided guidance on the linkages within reference models; however, there is a need for cross model integration guidance as well

Proposed FSA Hierarchy Illustration intra-model relationships



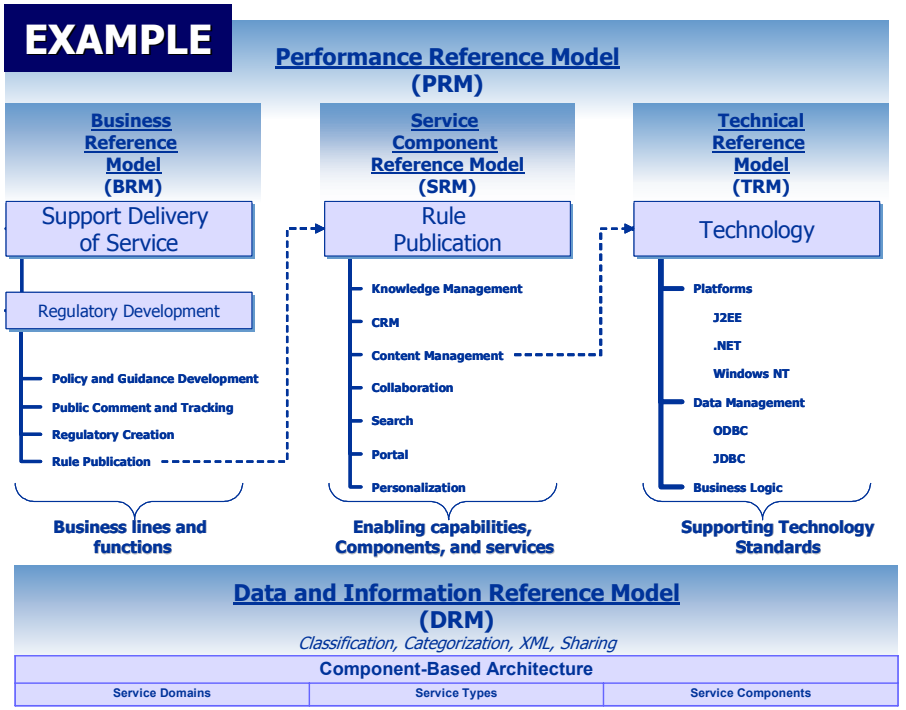
Indicates that the reference model component development is outside the scope of work

Indicates that the reference model development is within the scope of work

The intention is that agencies will further develop and integrate the Reference Models based on Business Line Architectures

Although previous documents have included this graphic from FEA-PMO, specific guidance on its development has not been provided and remains outside of the scope of work.

Integrated Reference Model Implementation



Within FSA

A Business Line Architecture would further define business processes, activities and tasks specific to FSA (e.g. leverage the work done in TIB and Data Strategy).

As the business-line approach of the BRM begins to take hold in agencies' capital planning efforts, and as agencies begin to work together along business lines, the *FEA-PMO hopes that agencies will begin to drive the direction of these areas of the BRM through the definition of Business Line Architectures*.

Across Government

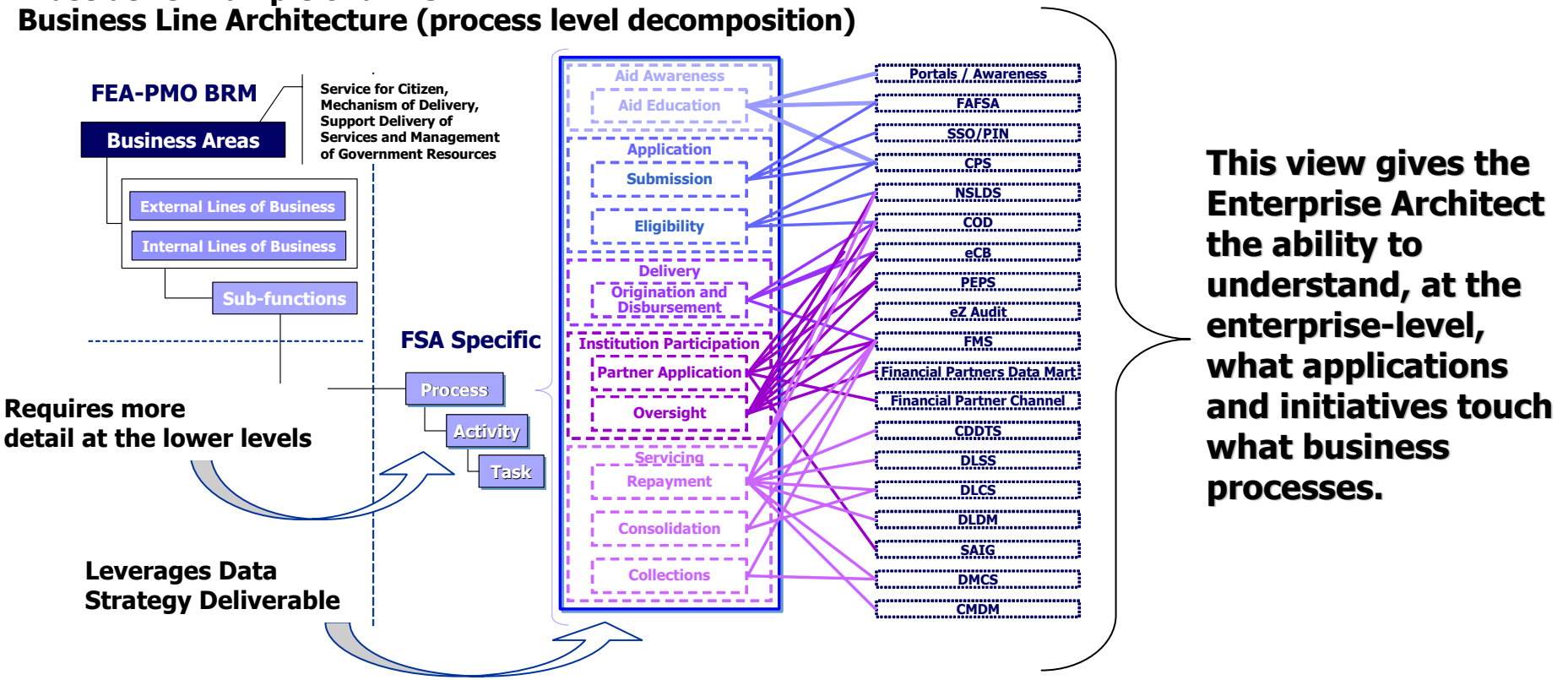
Business Line Architecture would allow agencies that have similar business lines to collaborate to develop systems/initiatives that could be leveraged in more than one agency.

How does FSA develop a Business Line Architecture?

Driving Business Line Architectures at FSA requires

1. Further refinement of FSA Business Processes, Activities and Tasks
2. Integration across FSA reference models by providing performance information about processes, activities and tasks reported in BRM
3. Investigating potential intra-agency and cross agency collaboration opportunities.

Illustrative Example of an FSA Business Line Architecture (process level decomposition)



This view gives the Enterprise Architect the ability to understand, at the enterprise-level, what applications and initiatives touch what business processes.

How else does an Enterprise Architect use Business Line Architecture? If four agencies are involved in a certain line of business, they will work together to: (1) improve the BRM Sub-Functions; (2) define the desired performance outcomes for the Business Line; (3) design IT solutions that span across their own organizational boundaries; and (4) better serve the citizen.

An enterprise view of the application/initiative alignment to the BRM business areas, lines of business and sub-functions

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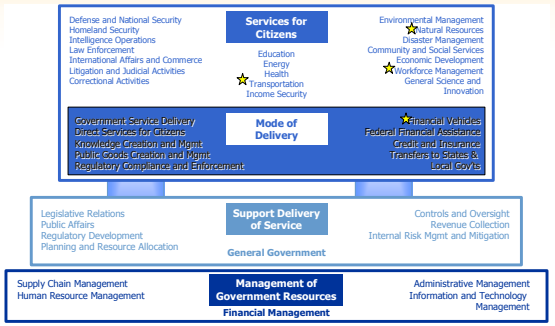


OMB Exhibit 300 Business Area Alignment

CSB

TPM

NSLDS Reengineering

OCTS

PIN SITE

Portals

DLCS

EZAUDIT

ELOANS

IFAPS

ECAMPUS Based

XML Framework

Map to BRM

Defense and National Security
Homeland Security
Intelligence Operations
Law Enforcement
International Affairs and Commerce
Litigation and Judicial Activities
Correctional Activities

Services for Citizens

Education
Energy
Health
Transportation
Income Security

Environmental Management
Natural Resources
Disaster Management
Community and Social Services
Economic Development
Workforce Management
General Science and Innovation

Mode of Delivery

COD
LOB: Credit and Insurance
Sub-function: Direct Loans

NSLDS
LOB: Credit and Insurance
Sub-function: Loan Guarantees

CPS
LOB: Federal Financial Assistance
Sub-function: Federal Grants (Non-State)

DLSS
LOB: Federal Financial Assistance
Sub-function: Federal Grants (Non-State)

DMCS
LOB: Revenue Collection
Sub-function: Debt Collection

Support Delivery of Service

DS
LOB: Information and Technology Management
Sub-function: Information Management

EAI/ITA
LOB: Information and Technology Management
Sub-function: Infrastructure Management

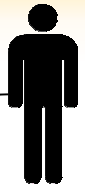
Management of Government Resources

FMS
LOB: Financial Management
Sub-function: Accounting

SAIG
LOB: Information and Technology Management
Sub-function: System Maintenance

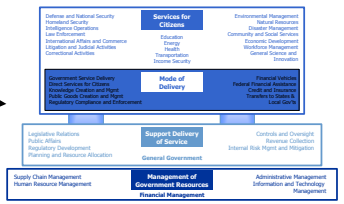
VDC
LOB: Information and Technology Management
Sub-function: Infrastructure Management

This FEA Use Case demonstrates how the FEA-PMO intends the reference models to be used



1 A new performance gap is identified. How do I improve performance?

2 Is the business function Being performed across Government?

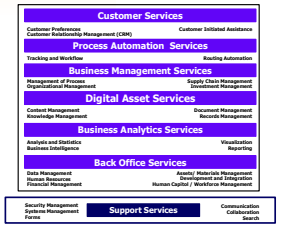


FEA Business Reference Model (BRM)

Same Business Process?

Yes

3 What Service Components are being used to support the business and process?



FEA Service Component Reference Model (SRM)

4 What performance measures, and outcomes are the Service Components supporting?

FEA Performance Reference Model (PRM)

5 Will the Components support The business need? What modifications are needed?

Service Level Agreements

No

6 What Access Channels can be Used to access the Component (i.e., Web Service, Portal, etc)

FEA Technical Reference Model (TRM)

Create Service Component, Advancement FEA Capabilities

Buy, Build Borrow

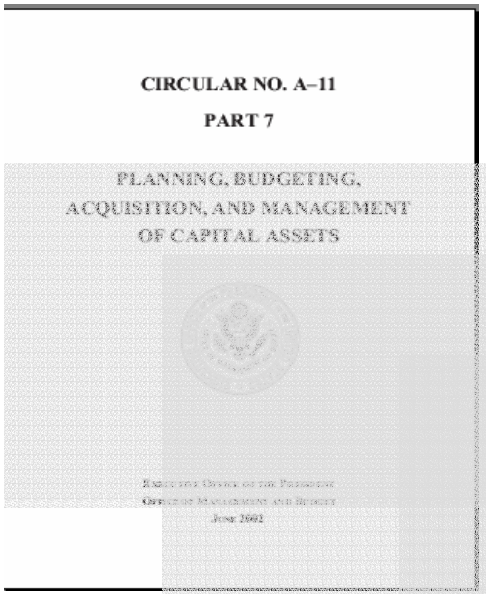
OMB Exhibits 300's

The Boiler Plate and Reference Model Update has specific benefits to the FSA-EA

- The FY'06 Boiler Plates document:
  - Summarizes the many OMB guidance documents that outline each reference model into one document
  - Uncovers areas of ambiguity and forwards for clarification
  - Allows FSA an opportunity to design and implement a comprehensive approach to the OMB Circular A-11, exhibit 300 and exhibit 53 submissions ahead of time
  - Promotes a pro-active approach for FSA to implement the FEA reference models
  - Reviews possible implementation scenarios for each reference model and provides recommendations
  - Provides potential areas for extension of the FEA reference models

The FY 2006 OMB Circular A-11 requires that all major IT investments be aligned with the FEA Framework

Although the models are guides there are many places of ambiguity and need for agency interpretation. However, the FEA Reference Models allows flexibility on implementation.


CIRCULAR NO. A–11

PART 7

PLANNING, BUDGETING, ACQUISITION, AND MANAGEMENT OF CAPITAL ASSETS

FEA Framework Reference Models

Business Reference Model (BRM): is a function-driven framework that describes the Lines of Business (LOB) and Internal Functions performed by the Federal government independent of the agencies that perform them. Major IT investments are mapped to the BRM to identify collaboration opportunities.

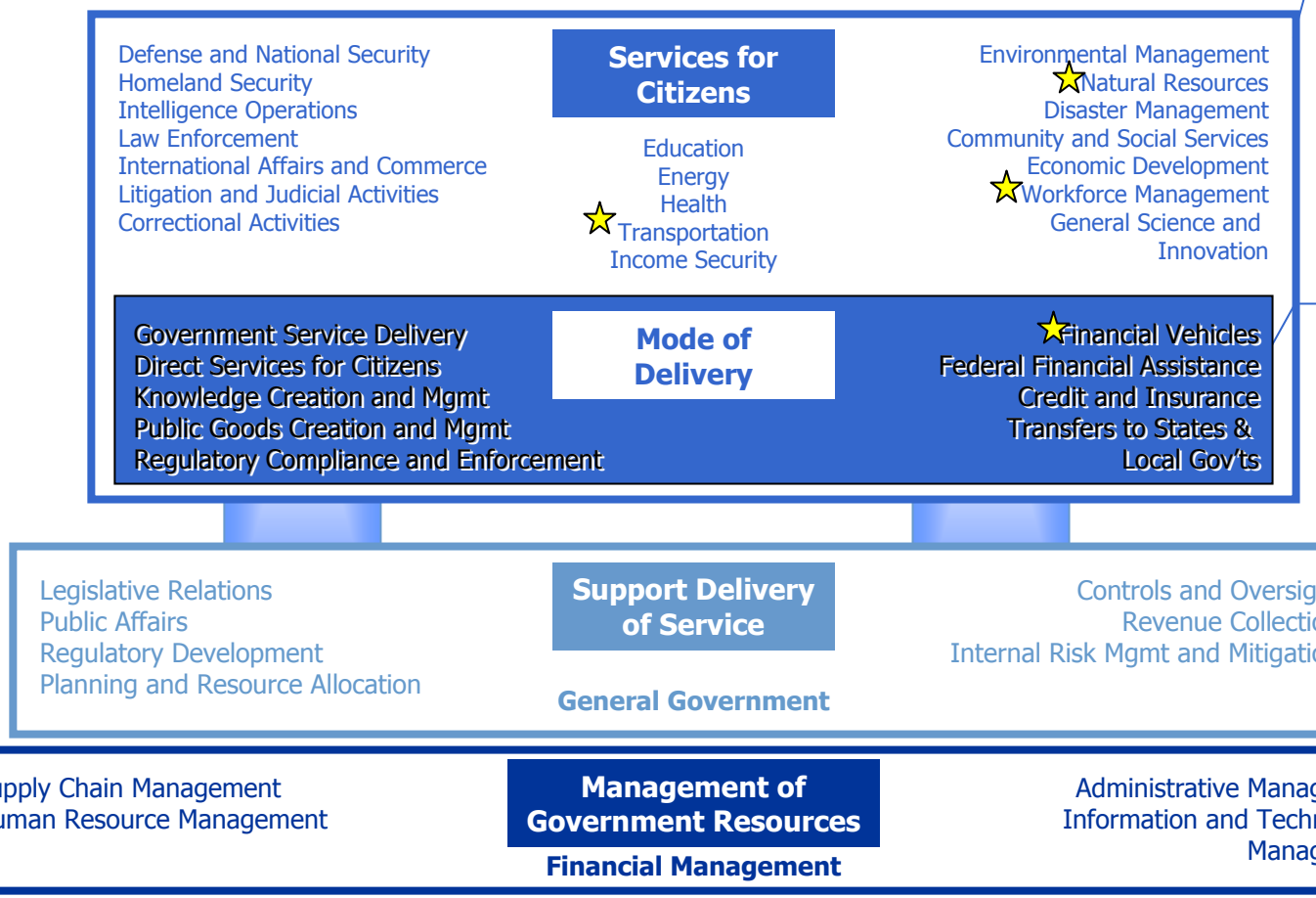
Performance Reference Model (PRM): is a standardized performance measurement framework designed to characterize performance in a common manner where necessary. The PRM will help agencies produce enhanced performance information; improve the alignment and better articulate the contribution of inputs, such as technology, to outputs and outcomes; and identify improvement opportunities that span traditional organizational boundaries.

Service Reference Model (SRM): provides a common framework and vocabulary for characterizing the IT and business components that collectively comprise an IT investment. The SRM will help agencies rapidly assemble IT solutions through the sharing and re-use of business and IT components. A component is a self-contained process, service, or IT capability with pre-determined functionality that may be exposed through a business or technology interface.

Technical Reference Model: provides a framework to describe the standards, specifications, and technologies supporting the delivery, exchange, and construction of business (or Service) components and e-Gov solutions. The TRM unifies existing agency TRMs and electronic Government (e-GOV) guidance by providing a foundation to advance the re-use of technology and component services from a government-wide perspective.

The BRM describes the Lines of Business performed by the federal government independent of the agencies that perform them

Version 2.0 of the BRM highlights the need for budget code alignment, reporting of both outcome and output performance information and a financial management view



Describes the *mission and purpose of the United States Government* in terms of the services it provides both to and on behalf of the American citizen. It includes the delivery of citizen-focused, public and collective goods and/or benefits as a service and/or obligation of the federal government to the benefit and protection of the nation's general population. It includes **19** Lines of Business and **66** Sub-functions.

Describes the *mechanisms the government uses to achieve the purpose* of government, or its services for citizens. It includes financial vehicles, direct government delivery, and indirect delivery. It includes **7** Lines of Business and **24** Sub-functions.

Provides the *critical policy, programmatic and managerial foundation to support federal government operations*. It includes **8** Lines of Business and **35** Sub-functions.

Refers to the *back office support activities that enable the government to operate* effectively. It includes **5** Lines of Business and **28** Sub-functions.

★ **Added to BRM Version 2.0**

The FEA-PMO wanted to modify the BRM to align with budget codes as closely as possible, without compromising the model's utility as an FEA reference model.

The Services for Citizens Business area has been modified to include Natural Resources, Workforce Mgmt and Transportation

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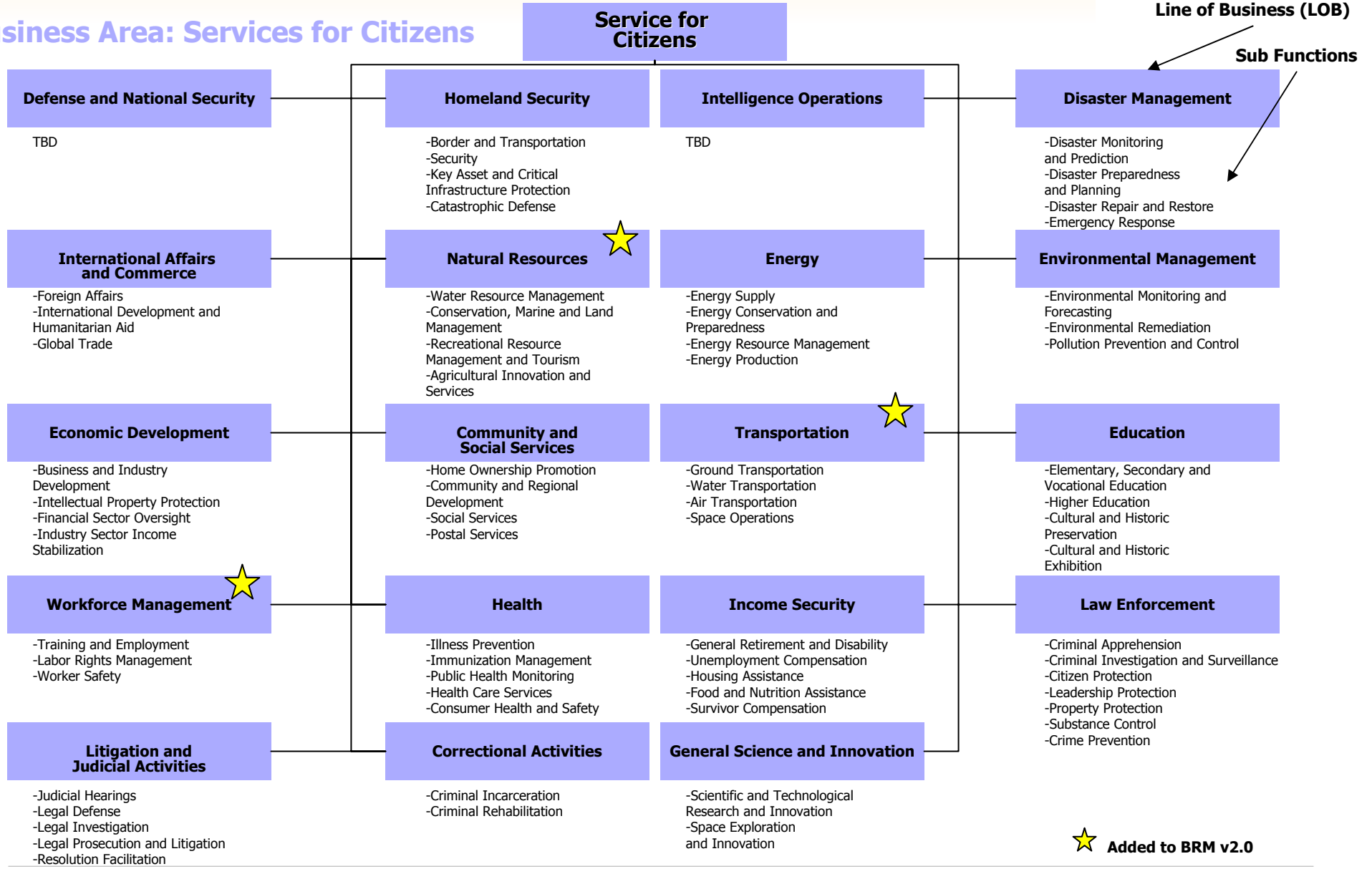
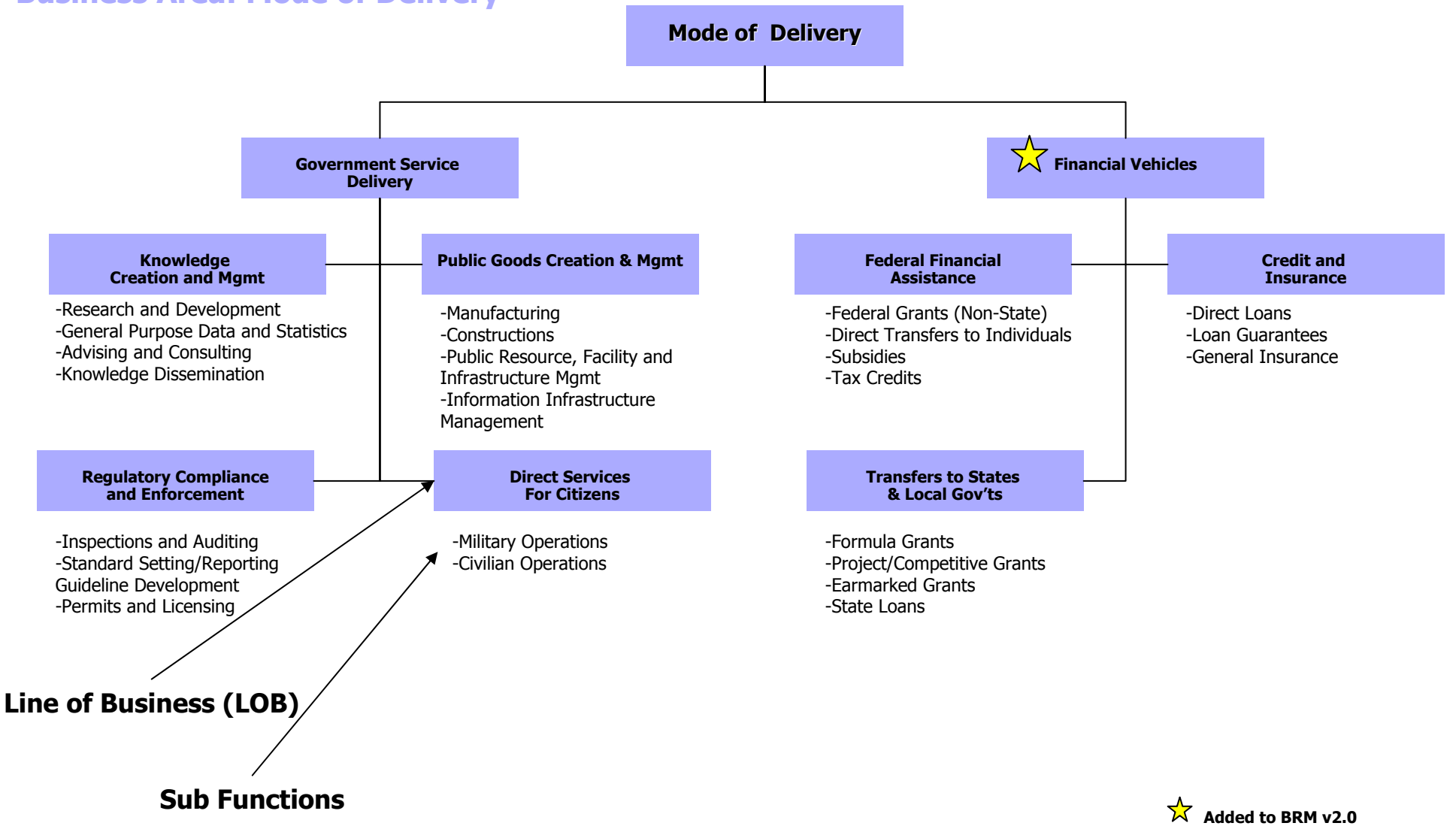
Business Area: Services for Citizens



The Financial Vehicles category has been added to the Mode of Delivery Business Area to reflect financial management

Business Area: Mode of Delivery



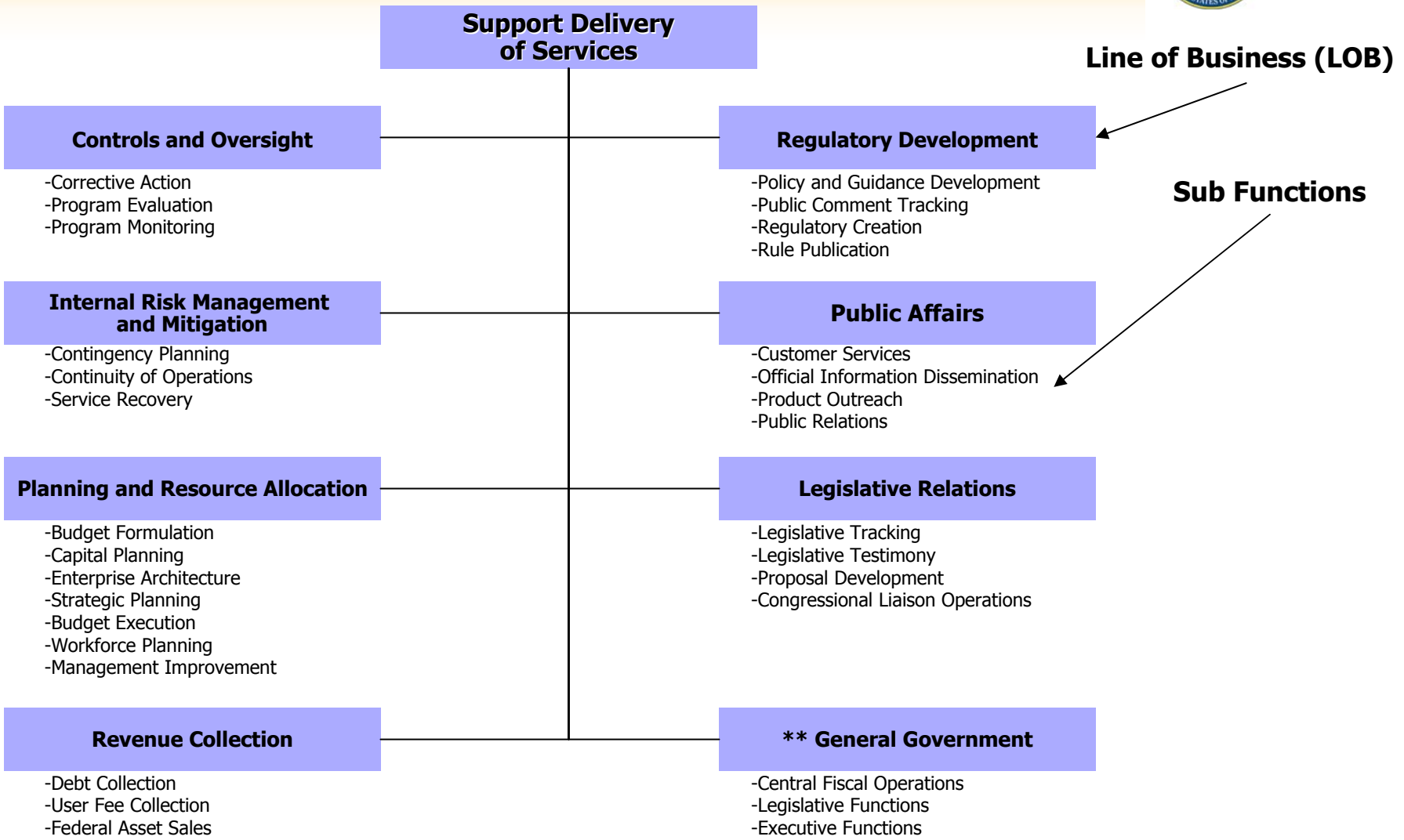
The Support Delivery of Services Business Area is the policy, programmatic and managerial foundation of government

Except where Services for Citizens and Mode of Delivery have dictated adjustments this business area has remained fairly constant

This Business Area Provides the *critical policy, programmatic and managerial foundation to support federal government operations*. It includes **8** Lines of Business and **35** Sub-functions.

The distinction between "Inter-agency and Intra-agency operations", although the terms have been changed to "Agency-Specific" and "Cross-Agency" and their scope has been broadened to include both the Management of Government Resources and Support Delivery of Services Lines of Business.

The Support Delivery of Services Business Area has 8 LOBs and 35 sub-functions



***** This Line of Business represents the purpose of the government's central management organizations, and can therefore be thought of with the Services to Citizens Lines of Business to facilitate certain budget and performance analysis***

Management of Government Resources happens within agencies and across government

Refers to the *back office support activities that enable the government to operate* effectively. It includes **5** Lines of Business and **28** Sub-functions

Supply Chain Management
Human Resource Management

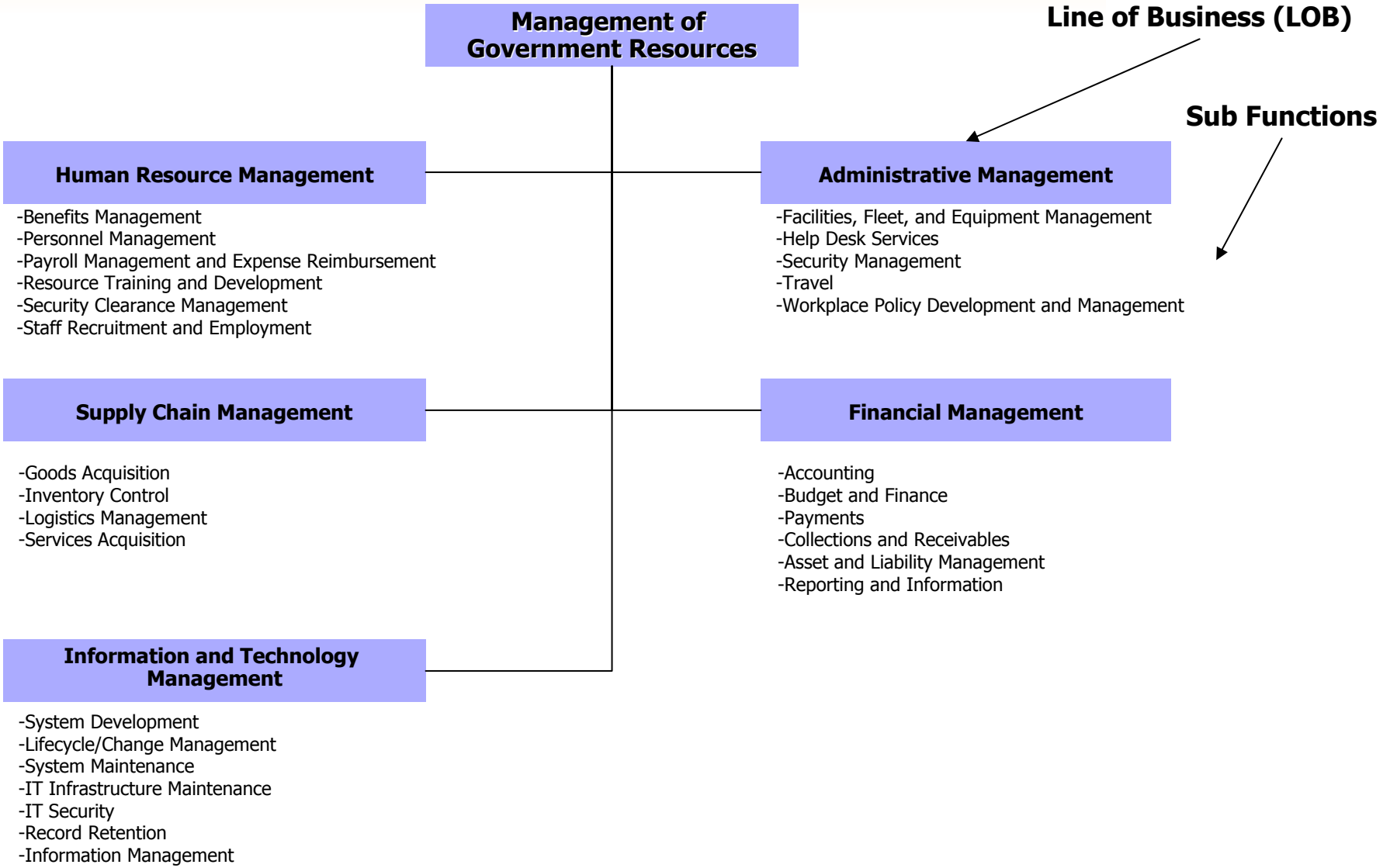
Management of Government Resources

Administrative Management
Information and Technology Management

Financial Management

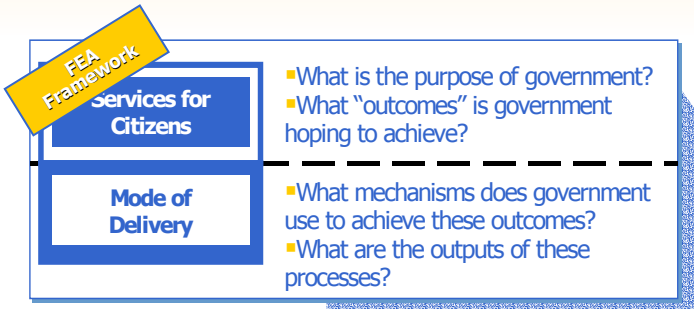
This business area is further divided into two sub-areas: Agency-Specific and Cross-Agency operations. Whereas most agencies' resource management activities support their own citizen-focused Lines of Business (*Agency-Specific*), **there are agencies that provide these services to other Federal Agencies**. These activities are distinguished within the *Cross-Agency* Management of Government Resources Business Area. The Cross-Agency category can be differentiated from the newly created General Government line of business in that it entails functions that an agency performs that are helpful or useable by one or more other agencies. Cross agency applies to the central management operations that facilitate the management of the Federal Government as a whole, such as the central fiscal operations performed by the Department of the Treasury.

The Management of Government Resources business area will also help to identify opportunities for collaboration in these areas



BRM details are include at the end of this document

Proper alignment to the BRM requires key questions to be considered in tandem



FSA Framework

Key Questions*:

Services for Citizens

- What is the purpose of **FSA**?
- What "outcomes" is **FSA** hoping to achieve?

Mode of Delivery

- What mechanisms does **FSA** use to achieve these outcomes?
- What are the outputs of these **FSA** processes?

***Note:** These key questions are relevant at all the levels of the BRM and beyond. The answers could be different at each level, but they are usually aligned.

With the addition of Mode of Delivery to the BRM, all government programs and mission-related IT systems can be thought of in terms of "mapping" to both a Service to Citizens and a Mode of Delivery.

When agencies map their programs or IT initiatives to the BRM and to the Lines of Business in the Services for Citizens Business Area specifically, they should map to a corresponding Line of Business and Sub-function in the Mode of Delivery area.

Services for Citizens
FSA's purpose: In support of the U.S. Department of Education's mission "to ensure equal access to education and to promote educational excellence throughout the nation", the U.S. Department of Education's Federal Student Aid (FSA) programs are the largest source of student aid in America, providing nearly 70% of all student financial aid.

Outcomes: Provide help to make education beyond high school financially possible and information to assist with college planning.

FSA is financial help for students enrolled in eligible programs at participating schools to cover school (a four-year or two-year public or private educational institution, a career school or trade school) expenses, including tuition and fees, room and board, books and supplies, and transportation. Most federal aid is need based.

Mode of Delivery:
Mechanisms used to achieve outcomes: Financial Vehicles

Outputs from FSA: The three most common types of aid (outputs) are grants, loans, and work-study.

The OMB Circular A-11 Requirements and Key Concepts are our primary focus

REQUIREMENT	▪Section 53.8 of A-11 requires agencies to create a Unique Project Identifier (UPI) for each IT investment. The last 6 digits of this ID should reflect the IT investment's primary alignment to the BRM.
	▪Section 53.8 of A-11 indicates agencies should contact OMB if they cannot identify a Primary BRM alignment. If an alignment cannot be identified, agencies should use the numbering schema as discussed in Appendices A and B to this guidance document.
	▪Section II.A.1.E of the Exhibit 300 requires agencies to identify both the primary and non-primary alignments to the BRM for major IT investments.
KEY CONCEPTS	▪Though an IT investment can have any number of alignments to the BRM, the Line of Business and Sub-function it most directly supports should be the primary alignment.
	▪A major IT investment that primarily aligns to the Service for Citizen Business Area must also identify a non-primary alignment to the Mode of Delivery.
	▪Agencies should align to the BRM in the most accurate and reasonable manner.
	▪The Business Reference Model is linked to the Budget Function Codes. This can serve as a useful starting point to align IT investments to the BRM. A BRM and Budget Function Code "crosswalk" document will be posted at www.feapmo.gov.
	▪Business or program-representatives to the project can be valuable resources to identify how the IT investment aligns with the BRM.

FSA's BRM Templates – Step one requires an examination of the line of business, sub-function and processes/programs supported

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Table: Summary Business Justification of IT Investment	
Name of Application/IT Investment	
Questions	Answers
Business Profile:	
What processes or programs does the IT investment support or automate?	
What is the purpose of these processes or programs?	A
	B
What support does the IT investment provide to these processes or programs?	C
	D
	E

BRM Sub-functions With Definitions that Correspond to Above Answers				
A	**B**	**C**	**D**	**E**

FSA's BRM Templates – Step two requires identifying the business area for each application/initiative along with the UPI

Must be validated and completed SMEs/ Business Owners

Table: Business Area Alignment for Application/Initiative				
BA Code	Business Area (BA) Alignment	Unique Project Identifier		
		Alignment	Line of Business	Sub-Function
SFC	***Directly*** Automates a Service for Citizens (SFC)			
MoD	***INDIRECTLY*** supports a Service for Citizen by automating the DELIVERY of that service through a Mode of Delivery (MoD)			
SDS	***DIRECTLY*** automates or supports one of the Support Delivery of Services Lines of Business (SDS)			
MGR	***DIRECTLY*** automates or supports one of the Management of Government Resources (MGR)			

This table will identify the primary BRM alignment to determine what Business Area the IT investment most directly supports. It will determine if the IT investment directly or indirectly supports or automates a business area. We should note here that the FSA COD system's primary alignment to the BRM is Federal Grants (Non-State) and the directions for Part II of the OMB Exhibit 300 (II.A.E) states the following: ***"(Note: The Services for Citizens area and the Mode of Delivery area should be thought of collectively. If you identified your primary line of business/sub-function in section 53.8 as a Service for Citizen or a Mode of Delivery, at a minimum you should identify the corresponding Mode of Delivery/Service for Citizen that applies in this section)"***.

The Unique Project Identifier (UPI) is used to name the business area, line of business and sub-function for each application/initiative

- The Department of Education should supply the unique number for the Line Of Business (LOB)/Internal Function and Sub-Function of the BRM associated with each initiative

xxx-xx-xx-xx-xx-xxxx-xx-XXX-XXX : 23-digit Unique Project ID#

BUSINESS AREA

1XX-XXX : Support for Citizens (SFC)

2XX-XXX : Mode of Delivery (MoD)

3XX-XXX : Support Delivery of Services (SDS)

4XX-XXX : Management of Government Resources (MGR)

205-080

LOB or INTERNAL FUNCTION*
Federal Financial Assistance

Sub-Function*
Federal Grants (Non-State)

***Values for these numbers can be found at www.FEAPMO.gov as well as in "Additional Guidance on FEA-Related Requirements in OMB Circular A-11" available from the same website.**

- If you can NOT identify a single LOB or Sub-Function for your initiative (this is not common), you may enter 99 (for the LOB/Internal Function) and/or 999 (for the Sub-Function)

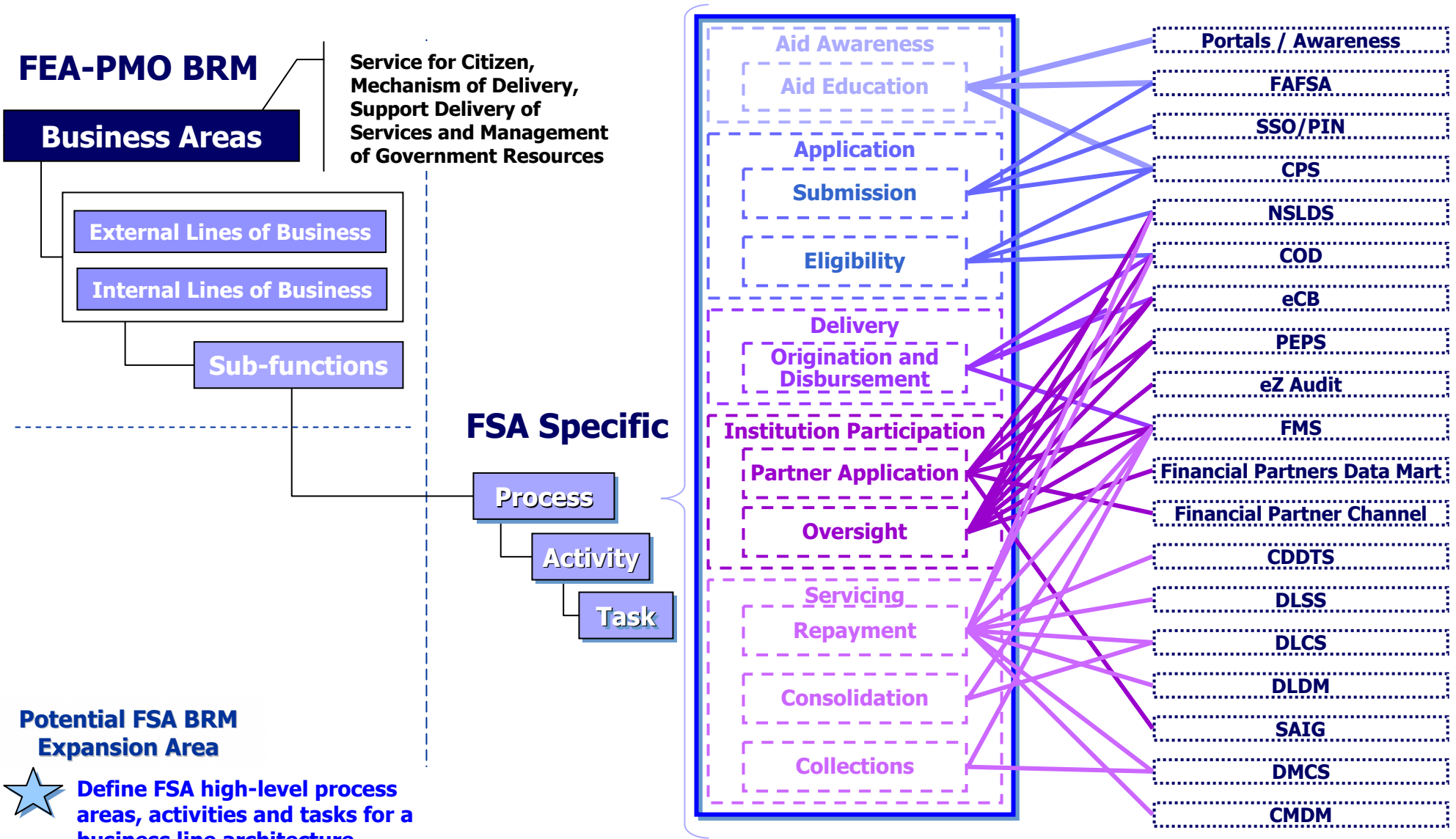
FSA's BRM Template – Step 3 is to prepare information for OMB Exhibit 300

Must be validated and completed SMEs/ Business Owners

Table: OMB 300 Information	
Application/Initiative – UPI: XXXXXX	
Line of Business	**Sub-function**
(Primary First)	

(Note that OMB requires that the primary BRM alignment used for the Unique Project ID be listed first. Also, the complementary Service for Citizens line of business and sub-function should be listed second if the primary business area is Mode of Delivery. For more information see page 6 of the Additional Guidance on the FEA-Related Requirements in OMB Circular A-11)

The FSA Process Areas would result in an extension of the FEA BRM to include and accurately describe FSA's Specific Information



Since Federal Student Aid* is a Performance Based Organization we can align performance goals with outcomes and outputs

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FSA Management agrees on certain high level performance goals for achieving specific results

- Improve Services to Students
- Reduce Costs
- Increase Accountability
- Integrate Information Systems
- Implement Common Integrated Delivery System
- Strengthen Program Integrity

Potential BRM Expansion Area currently not in scope

Align agency goals to the BRM to determine how successful FSA's applications/initiatives are at achieving overall results (can be used with the Mission and Business Results Measurement Category of the PRM).

Scope of Operations (FY2002)*

- **12M Aid Applications**
- **8M Aid Recipients**
- **$56.5B Delivered in Total New Financial Aid**
- **$32B Delivered in Consolidation Loans**
- **34M Inbound/Outbound Customer Service Telephone Calls**
- **25M Direct Loan Borrower Payments Processed**
- **20B Hits to FSA Websites**
- **41M+ Pieces of Mail Sent Out to Aid Applicants** (recent annual cycle)
- **22M Borrowers with Outstanding Loans**
- **$287B in Outstanding Loans**

*Taken from FSA's Scope of Operations and Programs Briefing One Briefing to Secretary Paige, June 2003

ED's Strategy Map illustrates the 5-year strategic goals that are typically used in support of the OMB Exhibit 300 submissions

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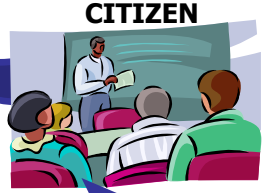
"No Child Left Behind"

To ensure equal access to education and to promote educational excellence throughout the nation

5-Year Strategic Goals

1.0 Create a Culture of Achievement	2.0 Improve Student Achievement	3.0 Develop Safe Schools & Strong Character	4.0 Transform Education into an Evidence-based Field	5.0 Enhance the Quality of and Access to Postsecondary and Adult Education	6.0 Establish Management Excellence

CUSTOMER & CITIZEN

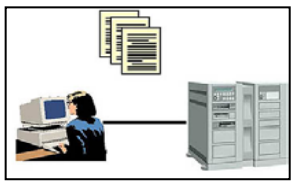


- Improve Student Performance (2.1, 2.2, 2.3)
- College Access & Funding (5.1, 5.3, 5.4)
- Literacy & Employment skills of adults (5.1)
- Information & Options for Parents (1.3)
- Promote Strong Character & Citizenship (3.2)
- Increase Flexibility & Local Control (1.2)
- Improve Teacher & Principal Quality (2.4)
- Accountability of post secondary institutions (5.2)
- Ensure schools are safe & drug free (3.1)

INTEGRITY & ACCOUNTABILITY

- Link federal education funding to accountability for results(1.1)
- Link funding decisions to results(6.5)
- Develop & maintain financial integrity and internal controls (6.1)
- Modernize FSA and reduce its high risk status (6.4)

INTERNAL PROCESS



- Manage IT resources using e-gov including security measures (6.3)
- Budget & Performance Integration (6.5)*
- Raise quality of research and align it to meet customer needs (4.1, 4.2)
- Use of scientifically based methods in programs (1.4)
- One-ED: Strategic Investment Process, Competitive Sourcing

ONE - ED
Provides support for Learning & Growth and Process

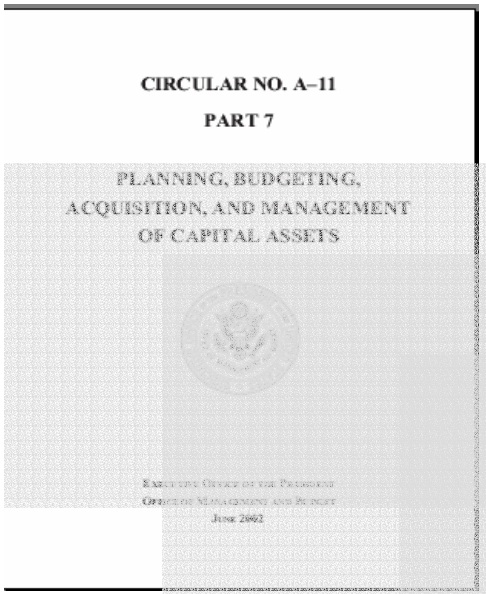
The Strategic Objectives have been mapped to the four ED Perspectives:

- Customer & Partner
- Integrity & Accountability
- Internal Process
- Human Capital Management

HUMAN CAPITAL MANAGEMENT

- Improve strategic management of human capital (6.2)
- One-ED: Learning Tracks, Individualized Development Plan, Leadership & Succession Planning, Human Capital Management & Accountability

The Performance Reference Model


CIRCULAR NO. A–11

PART 7

PLANNING, BUDGETING, ACQUISITION, AND MANAGEMENT OF CAPITAL ASSETS

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
JUNE 2002

Highlights of the Performance Reference Model (PRM):

Of all the FEA reference models, the ***PRM is most closely tied to the BRM***. The BRM provides a functional description of what Lines of Business and Sub-functions agencies currently conduct. ***Over time, the PRM can be applied to BRM Sub-functions to assess how well agencies conduct them.*** The BRM provides the content for the *Mission and Business Results Measurement Area* and the starting point to determine which Processes and Activities agencies should measure through the PRM. How the PRM is "operationalized" will vary depending on whether the Line of Business or Sub-function is in the Services for Citizens Measurement Area

Note: The Performance Reference Model (PRM) is most closely tied to the BRM

The PRM has relevant intersections with other important FSA management processes

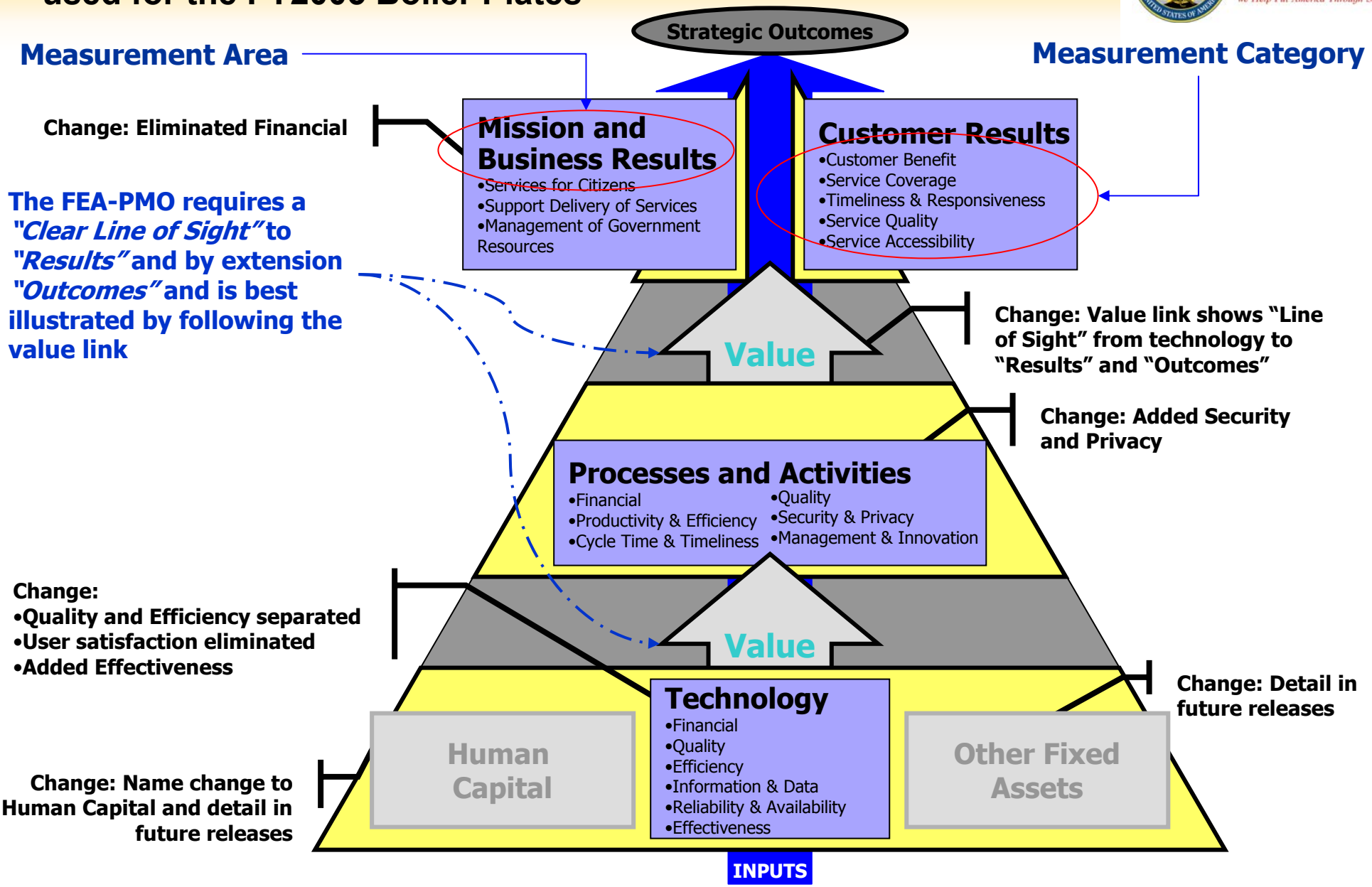
PRM has relevant intersections with other important management processes. Specifically, these are:

- **Budget and GPRA processes –** The PRM can, for example, help articulate the contribution of proposed IT initiatives to improved program performance and existing agency strategic goals.
- **Program Assessment Rating Tool (PART) assessments –** PRM Measurement Indicators and performance targets, for example, can be driven by the findings from PART assessments.
- **Agency IT Capital Planning and Investment Control (CPIC) –** Progress towards PRM Measurement Indicators can be the starting point for more detailed agency-level Post Implementation Reviews.
- **Agency Enterprise Architecture (FSA-EA) –** The Target Architecture can help drive and identify improvement strategies needed to meet performance targets chosen using the PRM.

PRM information can be collected from

- **Previous OMB Exhibits 300**
- **Business Case**
- **Business Justification**
- **Annual Performance Plan**
- **FSA Dash board/ Balanced Scorecard**
- **GAO Reports**

The PRM version 1.0 has several changes fro the draft version used for the FY2005 Boiler Plates



The PRM has six measurement areas with Human Capital Management and Other Fixed Assets detail to be provided in later releases

The PRM is currently comprised of six measurement areas:

Mission and Business Results
The Mission and Business Results Measurement Area of the PRM is intended to capture the outcomes that agencies seek to achieve. These outcomes are usually developed during the agency budget and strategic planning process prescribed under GPRA.

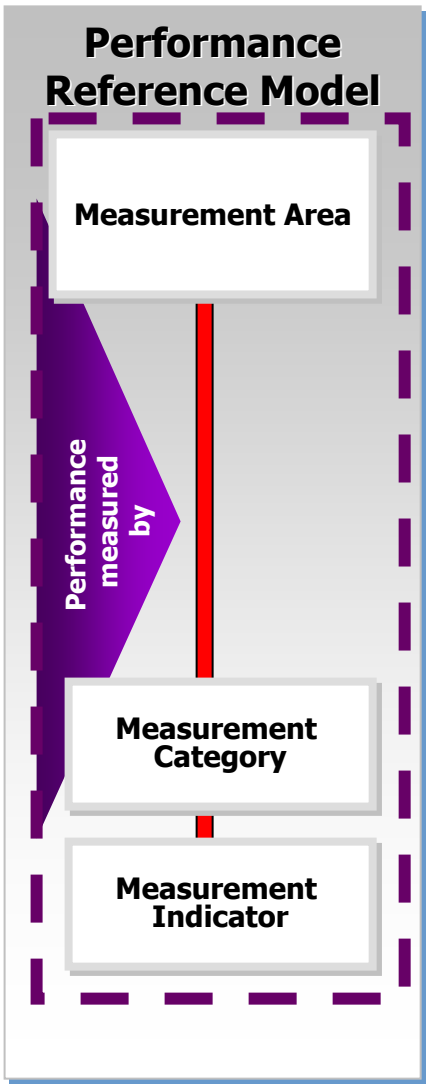
Customer Results
The Customer Results Measurement Area of the PRM is intended to capture how well an agency or specific process within an agency is serving its customers. This is a critical aspect of successful E-Government.

Processes and Activities
The Processes and Activities Measurement Area is intended to capture the outputs that are the direct result of the process that an IT initiative supports. These outputs are much more under the control of federal programs and generally contribute to or influence outcomes that are Mission and Business Results and Customer Results. This Measurement Area also captures key aspects of processes or activities that need to be monitored and/or improved.

Technology
The Technology Measurement Area is designed to capture key elements of performance that directly relate to the IT initiative. An IT initiative generally can include applications, infrastructure, or services provided in support of a process or program.

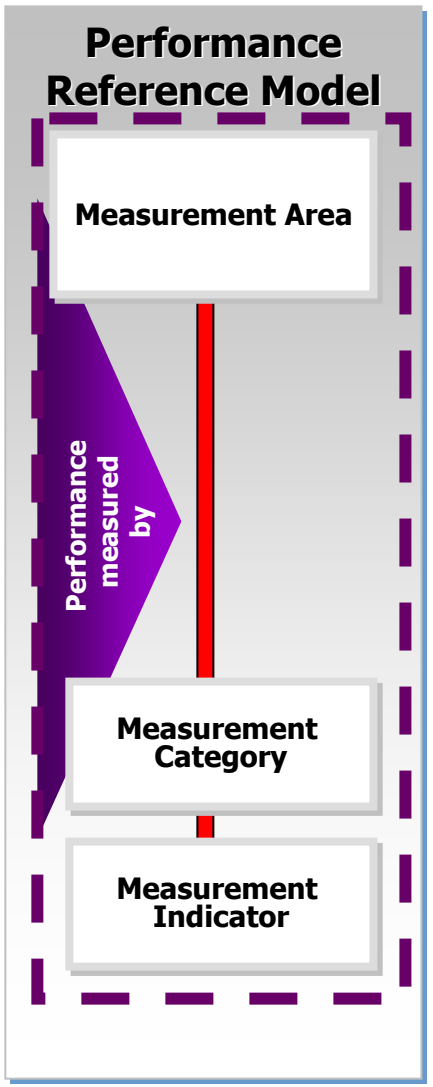
Human Capitol Management
To be provided in future releases

Other Fixed Assets
To be provided in future releases



Each measurement area is made up of measurement categories

Measurement Areas and Measurement Categories



Mission and Business Results Measurement Categories

- Services for Citizens
- Support Delivery of Services
- Management of Government Resources

Aligns with three of the business areas of the BRM

Customer Result Measurement Categories

- Customer Benefit
- Service Coverage
- Timeliness & Responsiveness
- Service Quality
- Service Accessibility

Processes and Activities Measurement Categories

- Financial
- Productivity & Efficiency
- Cycle Time & Timeliness

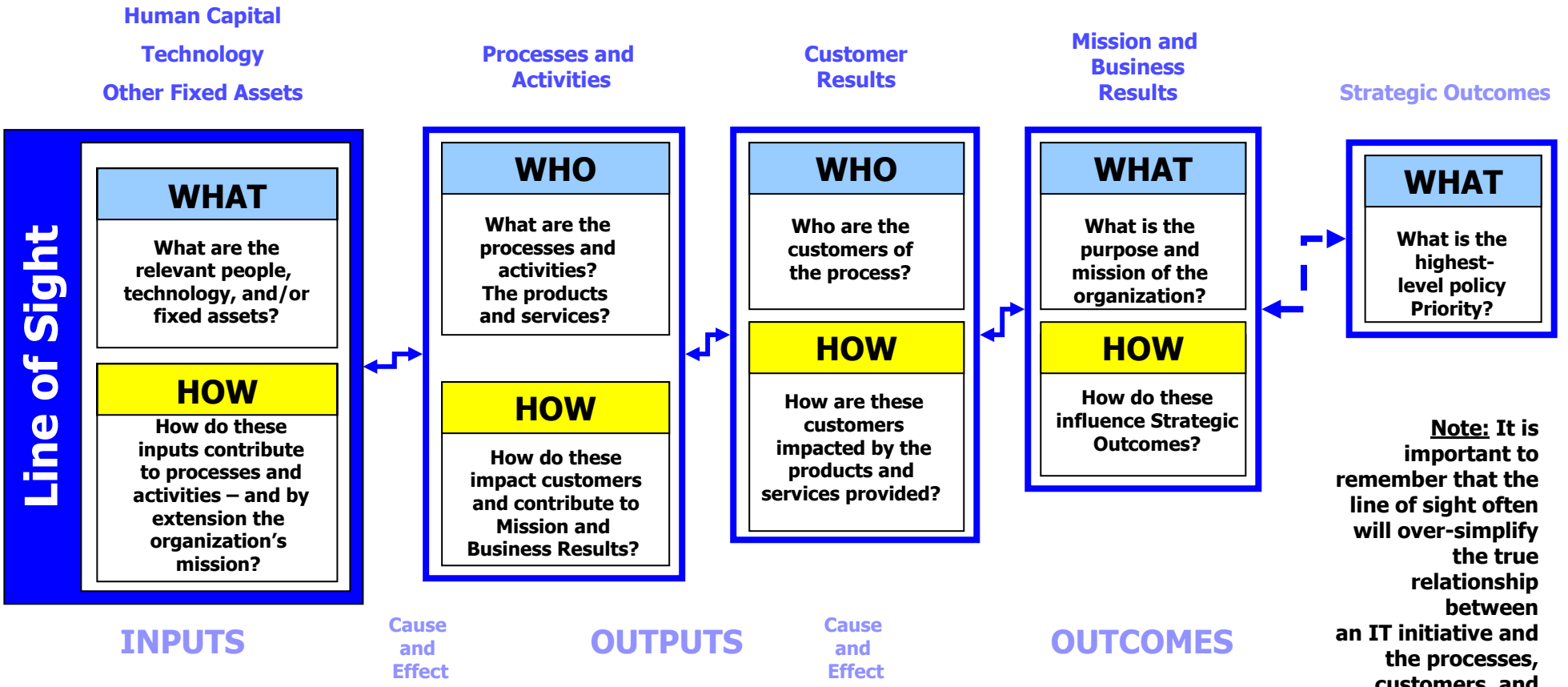
The Mode of Delivery business area of the BRM aligns here

Technology Measurement Categories

- Financial
- Quality
- Efficiency
- Information & Data
- Reliability & Availability
- Effectiveness

The line of sight requires identification of Measurement Indicators and OMB provides specific guidance in this area

(1) WHAT is in the line of sight and (2) HOW does each element in the line of sight relate?



Note: It is important to remember that the line of sight often will over-simplify the true relationship between an IT initiative and the processes, customers, and business results it supports. These relationships will rarely be direct "cause and effect," but more often an association or perceived relationship

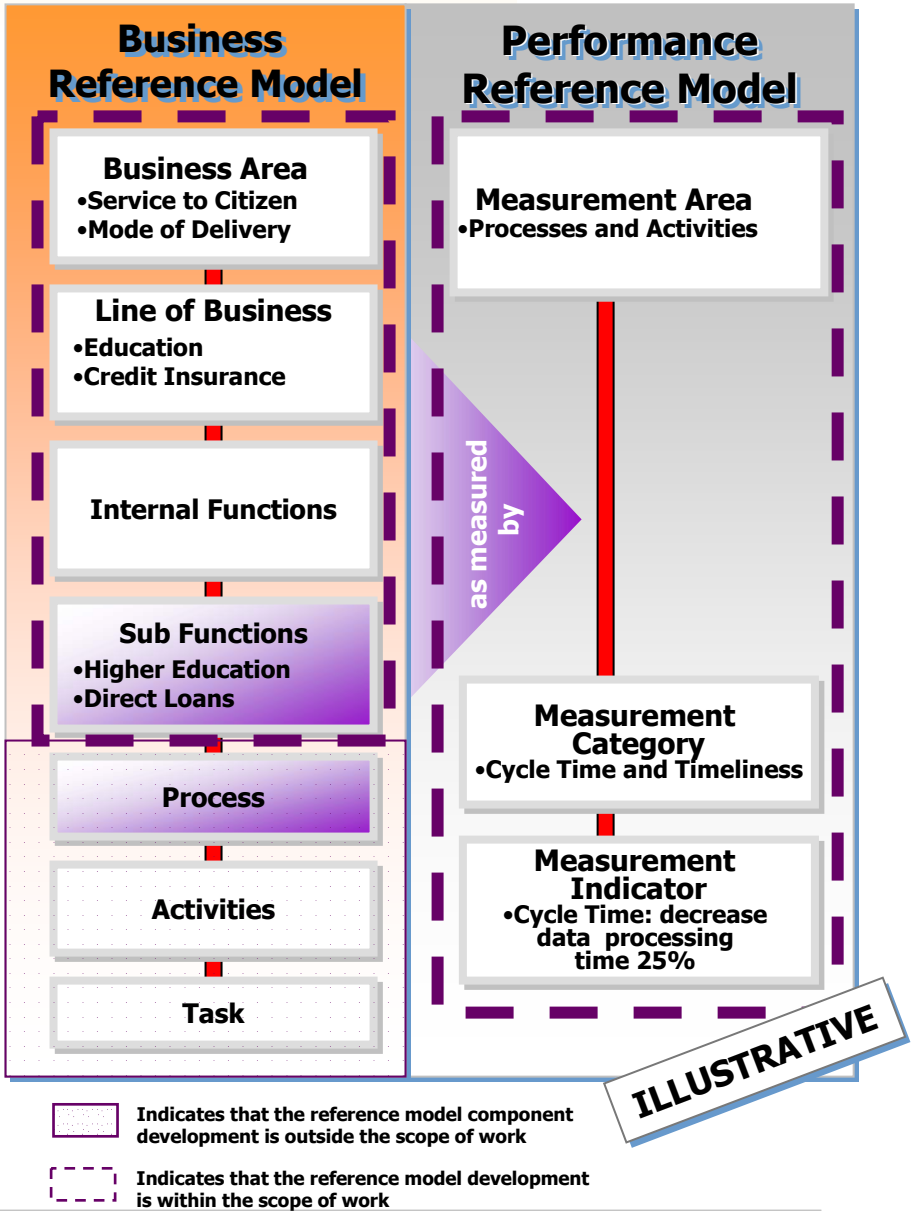
Key questions to determine WHAT is in the line of sight include:
What inputs (for the PRM and IT initiative) contribute to what processes?
What customers receive the products and services those processes produce?
What mission or business results do the outputs of those processes contribute to or influence?

Key questions to determine HOW each element in the line of sight relates include:
How does the IT initiative contribute to processes and activities (what capabilities does it actually provide)?
How do the processes and activities impact customers and contribute to mission and business results?

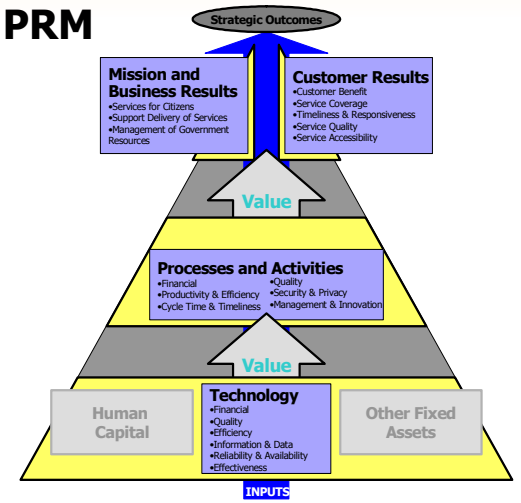
The benefits of the alignment of the PRM and the BRM is the accountability and tracking of program outcomes to process outputs

BRM to PRM alignment

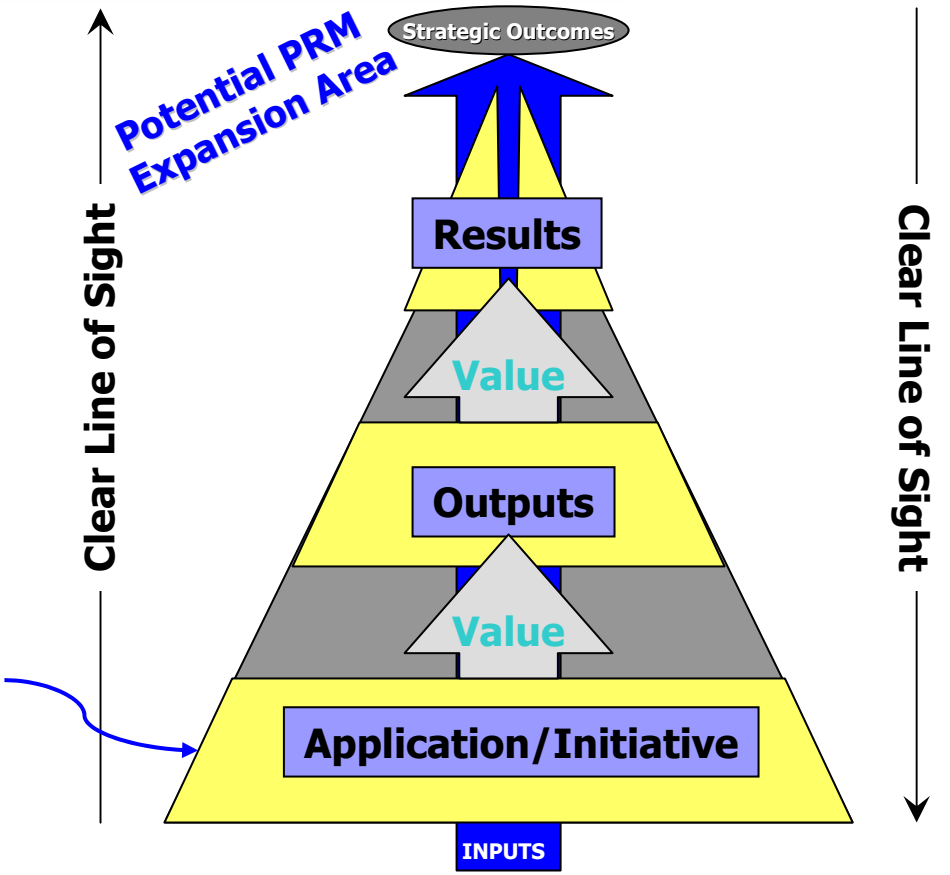
- Budget and Performance Integration will provide more useful performance information for decision-makers
- Integration of the BRM and the PRM would show progress toward both outcomes (purpose of government) and outputs (process results of government), for accountability purposes
- Agencies should use the PRM to determine the Operationalized Measurement Indicator for measuring performance. These must correspond to the appropriate Measurement Category. Each of these Measurement Indicators should be tailored or "operationalized" to the FSA's specific environment.



The PRM's "line of sight" reflects how value created as inputs is used to create outputs which ultimately impact outcomes



The proposed Expansion would be to document the Line of Sight from inputs to outcomes by incorporating v1 of PRM to FY'06 Boiler Plates to begin to "tease out" the contribution an application or initiative may make to improve performance.



Excerpt from OMB PRM documentation:
The PRM structure is designed to clearly articulate the cause and effect relationship between inputs, outputs and outcomes. **Though this relationship is rarely direct cause and effect, the PRM structure seeks to "tease out" the contribution an IT initiative makes to improve process and business performance (which when measured may only be a mere association).**

This "line of sight" is critical for IT project managers, program managers, and key decision-makers to understand how and to what extent technology is enabling progress towards outputs and outcomes. *The PRM captures this "line of sight" to reflect how value is created as inputs (such as Technology) are used to help create outputs (through Processes and Activities), which in turn impact outcomes (such as Mission and Business).* This structure builds from the concepts of the value chain, program logic models, and the theory of constraints. *Guiding the entire PRM are "Strategic Outcomes," which represent broad, policy priorities that drive the direction of government* (such as to Secure the Homeland or Expand E-Government). Conversely, the PRM is also structured to allow the desired outcomes an organization seeks to achieve to determine the outputs and technology needed.

The Performance Information Template is aligned with Section I.C – Table 1 of the Exhibit 300

For each fiscal year, agencies must identify performance information for their major IT investments in four Measurement Areas of the PRM: (1) Mission and Business Results, (2) Customer Results, (3) Processes and Activities, and (4) Technology. Identifying this performance information is critical so that agencies and OMB can understand the full "line of sight" from the proposed IT to outputs and outcomes.

Name: Application/Initiative 1						
Table 1 Section I.C of Exhibit 300						
Fiscal Year	Strategic Goal(s) Supported	Existing Baseline	Planned Performance Improvement Goal	Actual Performance Improvement Results	Planned Performance Metric	Actual Performance Metric Results

We have two FAQs addressing Table 1 that remain unanswered. Also, the OMB Exhibit 300 contains specific instructions for Table 2 that include the following language:

"Please use Table 2 and the PRM to identify the performance information that pertains to the major IT Investment. *Ensure there is a complete tie-in to the strategic goals and objectives described in section I.B.1.* "

* Note: Agencies must use Table 1 for reporting performance goals and measures for existing investments that were initiated prior to FY2005.

The Performance Information Template is aligned with Section I.C - Table 2 of the Exhibit 300

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Illustrative

Name: Application/Initiative

Table 2* of Section I.C of Exhibit 300

Fiscal Year	Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
			Generic	Operational			
FY06	Mission and Business Results	Service for Citizens - Education	Higher Education	Improve Services to Students			
FY06	Customer Results	Timeliness and Responsiveness	Response Time				
FY06	Customer Results	Service Quality	Accuracy of Service or Product Delivered	Percentage of Products or Services that are provided to customers that meet pre-determined quality standards or customer specifications	Not Yet Developed	Meet or exceed quality standards	Not Applicable
FY06	Process and Activities	Cycle Time and Timeliness	Cycle Time	Decrease data processing time by 25%	Not yet developed	Decrease Processing Time	Not Applicable
FY06	Process and Activities	Cycle Time and Timeliness	Timeliness				
FY06	Process and Activities	Financial	Financial Management	Number of findings in Financial Statement Audit	Clean Audit	Maintain zero Financial Statement Audit Findings	Not Applicable
FY06	Process and Activities	Management and Innovation	Compliance				
FY06	Technology	Financial	Overall Costs	Decrease System Cost by 25%	Not yet developed	Decrease System Cost	Not Applicable

Table 2 is to be used for all development, modernization, and enhancement projects for FY 2005. Identify and define 4 measurement indicators: one for each of the Measurement Areas (Mission and Business Results, Customer Results, Process and Activities, and Technology) of the PRM. Agencies should use the PRM only for new development, modernization, and enhancing major IT investments beginning in FY 2005 (OMB Circular A-11 and the FEA). Because OMB Circular A-11 states the PRM is for new development, modernization, and enhancing major IT investments, those that include "steady state" funding are not required to use the PRM and complete Table 2.

Note: If an IT investment is only "steady state", still recommend completing PRM's with existing performance data, since they will probably be required for FY06. In addition, FSA will capture the PRM's in the Enterprise Architecture Repository.

Specific Performance Reference Model Information is used in support of OMB Exhibit 300

Definitions for each column of Section I.C Table 2 of the OMB Exhibit 300

a) Fiscal Year – Agencies are to indicate in which fiscal year the initiative plans to use a particular Measurement Indicator.

b) Measurement Area – Agencies should use the PRM to determine the areas in which they will be measuring performance. For FY 2005, these must include Mission and Business Results, Customer Results, Processes and Activities, and Technology.

c) Measurement Category – Agencies should use the PRM to determine the category in which they will be measuring performance. These must correspond to the appropriate Measurement Area provided in the preceding column.

d) Measurement Indicator – Agencies should use the PRM to determine the Operationalized Measurement Indicator for which they will be measuring performance. These must correspond to the appropriate Measurement Category provided in the preceding column. Each of these Measurement Indicators should be tailored or "operationalized" to the agencies' specific environment.

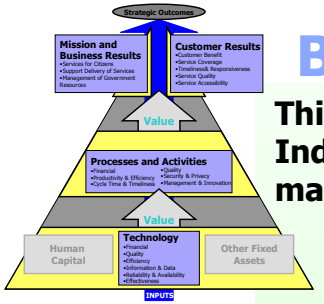
e) Baseline – Agencies should provide the relevant baseline information for the "Operationalized" Measurement Indicator provided in the preceding column. Baselines generally stay the same across fiscal years unless OMB approves a change to the baseline.

f) Planned Improvements to the Baseline – Agencies should provide the relevant performance target for the "Operationalized" Measurement Indicator for the appropriate fiscal year. These may, but will not always, change over time.

g) Actual Results – Agencies should provide the most current information they have to demonstrate progress consistent with the "Operationalized" Measurement Indicator.

The FEA-PMO suggests using a high-level four phased process to help FSA use the PRM

Potential Extension Area



Budget Formulation and Justification

This approach goes from developing Operationalized Measurement Indicators through measuring progress and making more informed management decisions

SELECT

I. Align with PRM

1. Determine "Line of Sight" from Outcomes to Inputs
2. Identify and Define PRM Measurement Indicators

II. Explore and Define Improvements

1. Conduct Baseline Analysis
2. Set Improvement Targets
3. Identify, Select and Propose Improvements

IV. Use Performance Information

1. Evaluate Progress
2. Inform Project and Program Management

EVALUATE

III. Measure Progress

1. Implement Improvements
2. Track Progress Toward Improvement Targets

CONTROL

IT initiatives must be developed in a business-driven context to be truly successful and accordingly identify intersections with other processes, such as GPRA, that are relevant when using IT to improve performance.

PRM- Budget Formulation/Justification Process Phase I and II establishes the line of sight and identifies improvements

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Potential Extension Area continued

PHASE I: ALIGN WITH THE PRM

- Determine Line of Sight from Outcomes to Inputs
  - *Understand context and performance drivers*
  - Understand what contributes to performance and how
  - Identify and define PRM Measurement Indicators
  - Select appropriate PRM Measurement Indicators
  - Define selected PRM Operationalize Measurement Indicators

PHASE II - EXPLORE AND DEFINE IMPROVEMENTS

- Conduct Baseline Analysis
  - Baseline performance against chosen PRM Measurement Indicators
  - Baseline current processes and capabilities

- Set Improvement Targets
  - Collect relevant data
  - Identify long-term and annual targets

- Identify, Select, and Propose Improvements
  - Identify potential improvement strategies
  - Select desired improvement strategy
  - Propose improvement strategy to agency, OMB, Congress, and other stakeholders

Phase III and Phase IV measures progress and uses information for improvement

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Potential Extension Area continued

PHASE III - MEASURE

- Implement Improvements
  - Though the time for implementation has arrived, it is still necessary to follow existing agency-level or Office of Management and Budget (OMB) processes. These include the IT Capital Planning and Investment Control (CPIC) requirements identified in OMB Circulars A-11 and A-130.

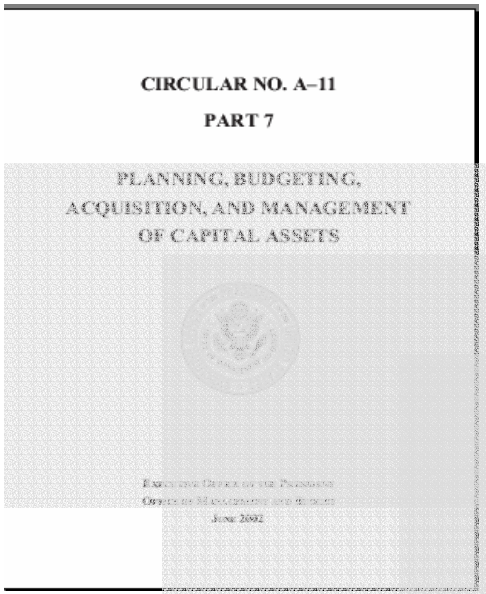
- Track Progress Toward Improvement Targets
  - The performance information created when tracking progress towards PRM Measurement Indicators can be useful input to agency-level activities during the Select, Control, and Evaluate phases of the IT CPIC process. Progress can be tracked, for example, quarterly during control reviews.

PHASE IV - USE PERFORMANCE INFORMATION

- Evaluate Progress
  - OMB budget examiners and agency officials can use the PRM to evaluate cross-agency progress during PART assessments. More specifically, the performance of agencies within the same BRM Sub-function can be compared to identify best practices to improve lower-scoring programs.

- Inform IT Project and Program Management
  - The important point is to use the information provided by progress towards PRM Indicators to make better decisions and as necessary assess and re-assess the path forward.

For FY'06 the SRM has some new information and a name change from Layers to Domains for the highest level view


CIRCULAR NO. A–11

PART 7

PLANNING, BUDGETING, ACQUISITION, AND MANAGEMENT OF CAPITAL ASSETS

Highlights of the Service Component Reference Model (SRM):

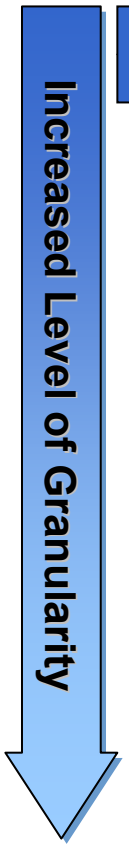
The SRM identifies seven (7) Service Domains that provide a high-level view of the services and capabilities that support enterprise and organizational processes and applications. These Service Domains are described as:

1. ***Customer Services***
2. ***Process Automation Services***
3. ***Business Management Services***
4. ***Digital Asset Services***
5. ***Business Analytical Services***
6. ***Back Office Services***
7. ***Support Services***

Each Service Domain is classified into one or more Service Types that group similar capabilities in support of the domain. Each Service Type includes one or more Service Components that provide the "building blocks" to deliver the component capability to the business.

The SRM hierarchy describes capabilities in greater levels of granularity at each level of decomposition

The SRM is decomposed into lower levels of granularity beginning from the process and application level to the software, component and module level. This level of decomposition provides various perspectives for stakeholders and solution architects to support the adoption of components and services within an IT initiative, asset or investment.



Service Domain

The collection of business-oriented service categories that align service / component capabilities to a level in which they support the objectives and performance of the business.

7 Service Domains

Formerly called Service Layers

Service Type

A collection of business-driven, service types (or categories) that assist the Service Domain in accomplishing the mission and/or performance objectives.

29 Service Types

Increased from 27 to 29 Service Types

Service Component

The collection of components and/or capabilities that support the Service Type.

168 Service Components

Increased from 143 to 168 Service Components

The Seven Service Reference Model Domains

1) The ***Customer Services*** Domain consists of the capabilities that are directly related to the end customer, the interaction between the business and the customer, and the customer-driven activities or functions. This Service Domain consists of 3 Service Types and 21 Components.
2) The ***Process Automation Services*** Domain consists of the capabilities that support the automation of process and management activities that assist in effectively managing the business. This Service Domain consists of 2 Service Types and 5 Components.
3) The ***Business Management Services*** Domain consists of the capabilities that support the management and execution of business functions and organizational activities that maintain continuity across the business and value-chain participants. This Service Domain consists of 4 Service Types and 20 Components.
4) The ***Digital Asset Services*** Domain consists of the capabilities that support the generation, management and distribution of intellectual capital and electronic media across the business and extended enterprise. This Service Domain consists of 4 Service Types and 25 Components.
5) The ***Business Analytical Services*** Domain consists of the capabilities that support the extraction, aggregation and presentation of information to facilitate decision analysis and business evaluation. This Service Domain consists of 4 Service Types and 19 Components.
6) The ***Back Office Services*** Domain consists of the capabilities that support the management of enterprise planning transactional-based functions. This Service Domain consists of 6 Service Types and 47 Components.
7) The ***Support Services*** Domain consists of the cross-functional capabilities that can be leveraged independent of Service Domain objective or mission. This Service Domain consists of 6 Service Types and 31 Components.

SRM Structure addresses the detail required to answer OMB Exhibit 300, Question II.A.3.A

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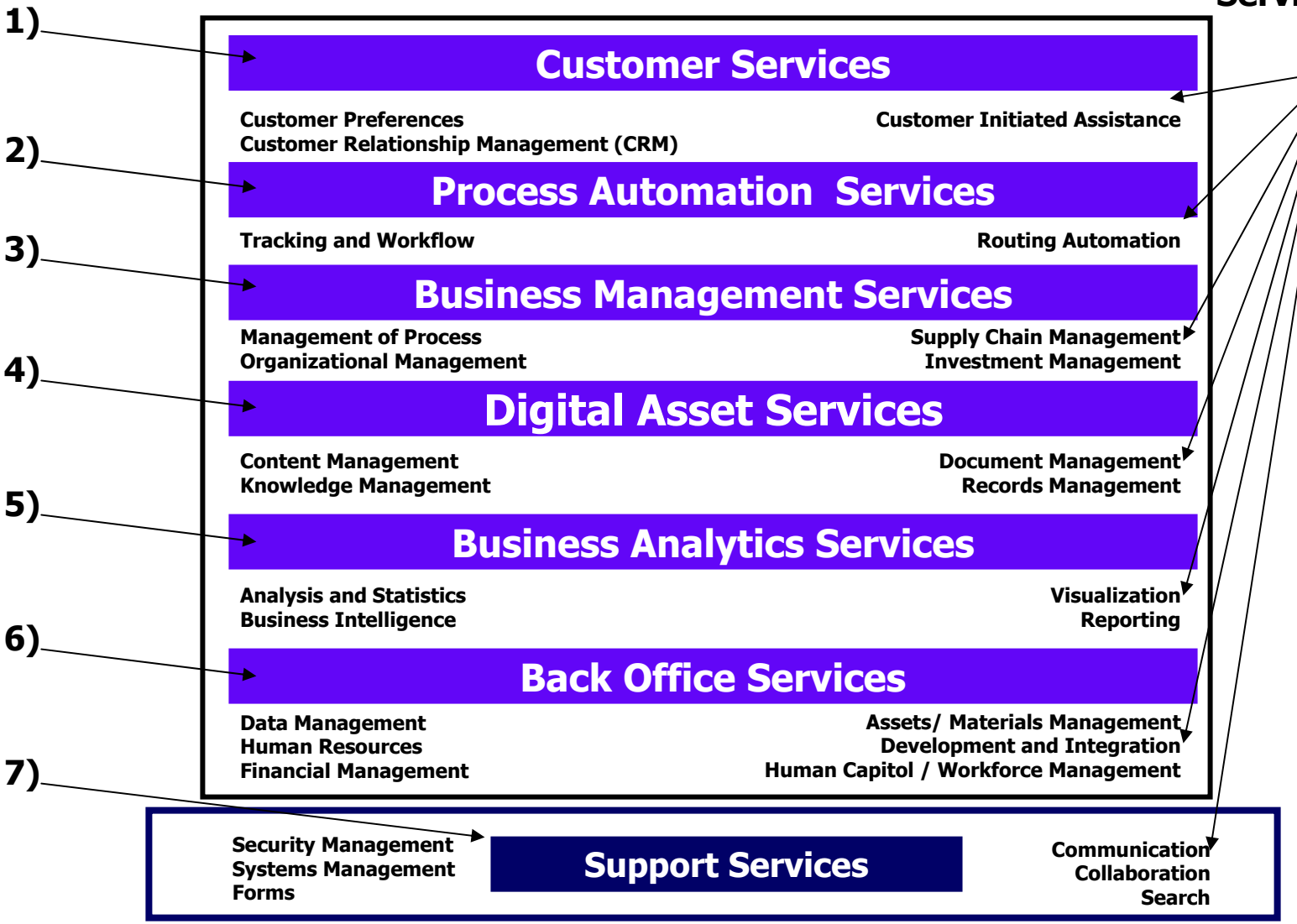
Service Domains (7)*

Service Types (29)



***SRM Service Component details are also include in the Appendix at the end of this document**

The Services Domain have Service Types and each Service Type consists of Service Components

Identify the Service types and components that apply to each application/initiative:

Customer Services Domain

1) Customer Preferences
- *Personalization*
- *Subscriptions*
- *Sales and Marketing*
- *Alerts and Notifications*
- *Profile Management*

2) Customer Relationship Management
- *Call Center Management*
- *Customer Analytics*
- *Sales and Marketing*
- *Product Management**
- *Brand Management**
- *Customer / Account Management*
- *Contact Management*
- *Partner Relationship Management*
- *Customer Feedback*
- *Surveys*

3) Customer Initiated Assistance
- *Online Help*
- *Online Tutorials*
- *Self-Service*
- *Reservations / Registration*
- *Multi-Lingual Support*
- *Assistance Request*
- *Scheduling**

Process Automation Service

1) Tracking and Workflow
- *Process Tracking*
- *Case / Issue Management**
- *Conflict Resolution*

2) Routing Automation
- *Inbound Correspondence Management**
- *Outbound Correspondence Management**

Business Management Services

1) Management of Process
- *Change Management*
- *Configuration Management*
- *Requirements Management*
- *Program / Project Management*
- *Governance / Policy Management*
- *Quality Management*
- *Business Rule Management**
- *Risk Management**

2) Organizational Management
- *Workgroup/ Groupware*
- *Network Management*

3) Supply Chain Management
- *Procurement**
- *Sourcing Management**
- *Catalog Management**
- *Order/Purchasing**
- *Invoice / Requisition Tracking and Approval**
- *Storefront / Shopping Cart**
- *Returns Management**

4) Investment Management
- *Strategic Planning and Management*
- *Portfolio Management*
- *Performance Management*

Note: "*" denotes change to the reference model

The Services Domain have Service Types and each Service Type consists of Service Components

Identify the Service types and components that apply to each application/initiative:

Digital Asset Services

1) Content Management
- *Content Authoring*
- *Content Review and Approval*
- *Tagging and Aggregation*
- *Content Publishing and Delivery*
- *Syndication Management*

2) Knowledge Management
- *Information Retrieval*
- *Information Mapping / Taxonomy*
- *Information Sharing*
- *Categorization*
- *Knowledge Engineering*
- *Knowledge Capture*
- *Knowledge Discovery*
- *Knowledge Distribution and Delivery*

3) Document Management
- *Document Imaging and OCR*
- *Document References*
- *Document Revisions*
- *Library Storage*
- *Document Review and Approval*
- *Document Conversion*
- *Indexing*
- *Classification**

4) Records Management
- *Record Linking / Association*
- *Document Classification*
- *Document Retirement*
- *Digital Rights Management*

Business Analytics Services

1) Analysis and Statistics
- *Modeling*
- *Predictive*
- *Simulation*
- *Mathematical*
- *Structural / Thermal*
- *Radiological*
- *Forensics*

2) Business Intelligence
- *Demand Forecasting / Management*
- *Balanced Scorecard*
- *Decision Support and Planning*
- *Data Mining*

3) Visualization
- *Graphing / Charting*
- *Imagery*
- *Multimedia*
- *Mapping / Geospatial / Elevation / GPS*
- *CAD*

4) Reporting
- *Ad Hoc*
- *Standardized / Canned*
- *OLAP*

Back Office Services

1) Data Management
- *Data Exchange*
- *Data Mart*
- *Data Warehouse*
- *Meta Data Management*
- *Data Cleansing*
- *Extraction and Transformation*
- *Loading and Archiving*
- *Data Recovery**
- *Data Classification**

2) Human Resources
- ***Recruiting***
- *Resume Management*
- *Career Development and Retention*
- *Time Reporting*
- *Awards Management**
- *Benefit Management*
- *Retirement Management*
- *Personnel Management*
- *Education / Training*
- *Health and Safety**
- *Travel Management**

3) Financial Management
- *Billing and Accounting*
- *Credit / Charge*
- *Expense Management*
- *Payroll*
- *Payment /Settlement*
- *Debt Collection*
- *Revenue Management**
- *Auditing*
- *Data Classification*
- *Activity Based Management*
- *Currency Translation*
- *Financial Reporting**

Note: "*" denotes change to the reference model

The Services Domain have Service Types and each Service Type consists of Service Components

Identify the Service types and components that apply to each application/initiative:

Back Office Services continued

4) Assets/ Materials Management
- *Property / Asset Management**
- *Asset Cataloging / Identification*
- *Asset Transfer, Allocation and Maintenance**
- *Facilitation Management*
- *Computers / Automation Management**

5) Development and Integration
- *Legacy Integration*
- *Enterprise Application Integration*
- *Data Integration*
- *Instrumentation and Testing**
- *Software Development**

6) Human Capitol/ Workforce Management
- *Resource Planning and Allocation*
- *Skills Management*
- *Workforce Directory/Locator*
- *Team / Organization Management*
- *Contingent Workforce Management*
- *Workforce Acquisition / Optimization*

Support Services

1) Security Management
- *Identification and Authentication**
- *Access Control*
- *Encryption*
- *Intrusion Detection*
- *Verification*
- *Digital Signature*
- *User Management*
- *Role/ Privilege Management*
- *Audit Trail Capture and Analysis*

2) Systems Management
- *License Management**
- *Remote System Control**
- *System Resource Monitoring**
- *Software Distribution**

3) Forms
- *Forms Creation**
- *Forms Modification**

Support Services continued

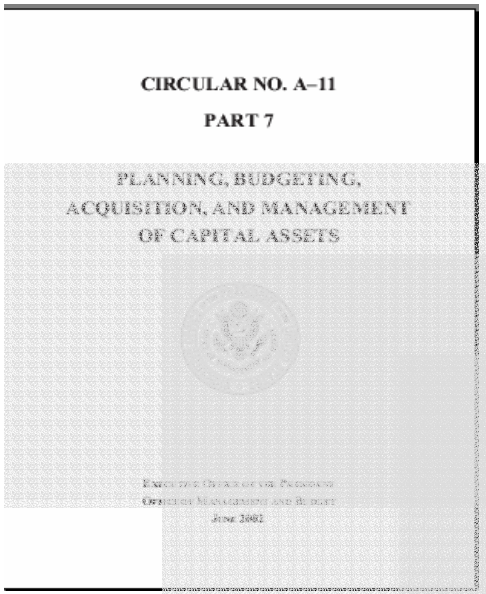
4) Communication
- *Real Time/ Chat*
- *Instant Messaging*
- *Audio Conferencing*
- *Video Conferencing*
- *Event / News Management*
- *Community*
- *Management*
- *Computer / Telephony Integration**

5) Collaboration
- *E-mail*
- *Threaded Discussions*
- *Document Library*
- *Shared Calendaring*
- *Task Management*

6) Search
- *Query**
- *Precision Recall Ranking**
- *Classification**
- *Pattern Matching**

Note: "*" denotes change to the reference model

The Technical Reference Model (TRM) serves to outline the technology elements that collectively support the adoption and Implementation of component-based architectures.


CIRCULAR NO. A–11

PART 7

PLANNING, BUDGETING, ACQUISITION, AND MANAGEMENT OF CAPITAL ASSETS

June 2002

Highlight of the Technical Reference Model

•Technical Reference Model (TRM):

The TRM is a component-driven, technical framework used to identify the ***standards***, ***specifications***, and ***technologies*** that ***support and enable the delivery of service components and capabilities***. The TRM serves to outline the technology elements that collectively support the adoption and implementation of component-based architectures. The model ***provides the foundation to advance the re-use of technology and component services across the Federal Government through standardization.*** Aligning Agency capital investments to the TRM leverages a common, standardized vocabulary, allowing inter-Agency and intra-Agency discovery, collaboration, and interoperability. Agencies, and the Federal Government, will benefit from economies of scale by identifying and re-using the best solutions and technologies to support their business functions, mission, and target architecture.

TRM Service Areas represent a technical tier supporting the secure construction, exchange, and delivery of Service Components and Capabilities

TRM Service Areas

Service Access and Delivery

Service Access and Delivery refers to the collection of standards and specifications to support external access, exchange, and delivery of Service Components or capabilities. This area also includes the Legislative and Regulatory requirements governing the access and usage of the specific Service Component.

Service Platform and Infrastructure

Service Platform and Infrastructure refers to the collection of delivery and support platforms, infrastructure capabilities and hardware requirements to support the construction, maintenance, and availability of a Service Component or capabilities.

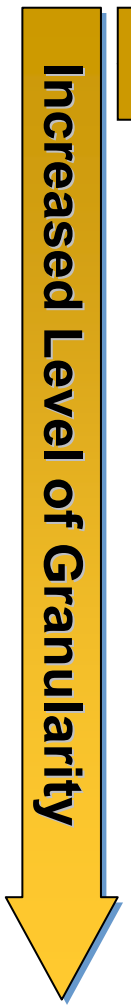
Component Framework

Component Framework refers to the underlying foundation, technologies, standards, and specifications by which Service Components are built, exchanged, and deployed across Component-Based, Distributed, or Service-Orientated Architectures.

Service Interface and Integration

Service Interface and Integration refers to the collection of technologies, methodologies, standards, and specifications that govern how agencies will interface (both internally and externally) with a Service Component. This area also defines the methods by which components will interface and integrate with back office / legacy assets.

Service Areas are decomposed to form the foundation of a component-based architecture



Service Area

Each Service Area (there are 4 in all) aggregates and groups (categorizes) the standards, specifications, and technologies into lower-level functional areas.

Service Category

A Service Category (there are 17 in all) is a sub-tier of the Service Area to classify lower levels of technologies, standards, and specifications in respect to the business or technology function they serve.

Service Standard

A Service Standard (there are 50 in all) is hardware, software, or specifications that are widely used and accepted (de facto), or are sanctioned by a standards organization (de jure).

Service Specification

A Service Specification is a formal layout/blueprint/design of an application development model for developing distributed component-based architectures.

The Component-based Architecture advances the re-use of technology and component services through standardization

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Service Area →
Service Category →
Service Standard →

Service Access and Delivery

Access Channels
- Web Browser
- Wireless / PDA Devices
- Collaboration / Communication
- Other Electronic Channels

Delivery Channels
- Internet, Intranet
- Extranet
- Peer to Peer (P2P)
- Virtual Private Network (VPN)

Service Requirements
- Legislative / Compliance
- Authentication / Single Sign-On
- Hosting

Service Transport
- Network Services
- Transport

Service Platform and Infrastructure

Support Platforms
- Wireless / Mobile
- Platform Independent (J2EE)
- Platform Dependent (.Net)

Database / Storage
- Database
- Storage Devices

Delivery Services
- Web, Media
- Application
- Portal

Software Engineering
- Integrated Development Environment (IDE)
- Software Configuration Management (SCM)
- Testing Management, Modeling

Hardware / Infrastructure
- Servers / Computers
- Embedded Technology Devices
- Peripherals
- WAN, LAN
- Network Devices / Standards
- Video Conferencing

Component Framework

Security
- Certificates / Digital Signature
- Supporting Security Service

Database Interchange
- Data Exchange

Presentation / Interface
- Student Display
- Dynamic Server-Side Display
- Content Rendering
- Wireless / Mobile / Voice

Business Logic
- Platform Independent
- Platform Dependent

Data Management
- Database Connectivity
- Reporting and Analysis

Service Interface and Integration

Integration
- Middleware
- Database Access
- Transaction Processing
- Object Request Broker

Interoperability
- Data Format / Classification
- Data Types / Validation
- Data Transformation

Interface
- Service Discovery
- Service Description / Interface

The TRM Template will identify the service category, standards and specification

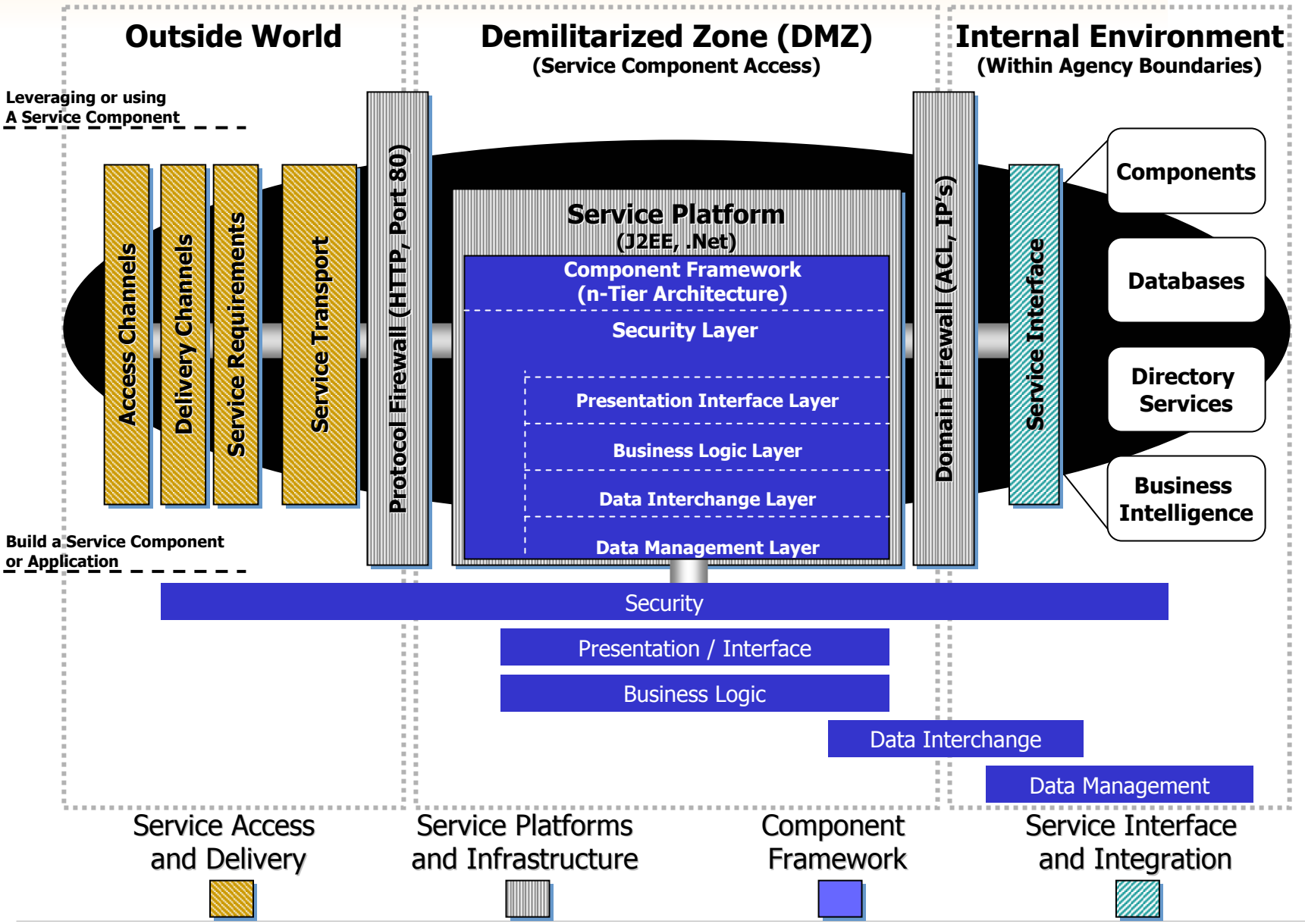
Example

Exhibit 300, Question II.A.3.C

Service Area: Service Access and Delivery		
Service Category	**Service Standards**	**Service Specification**
Access Channels	**Web Browser**	Internet Explorer, Netscape Communicator
	Wireless / PDA Devices	Palm Operating System, Blackberry, Pocket PC 2000, Pocket PC Phone Edition, Symbian Epoc
	Collaboration /Communications	Electronic Mail (E-mail), Facsimile (Fax), Kiosk
	Other Electronic Channels	System to System, Web Service, Uniform Resource Locator (URL)
Delivery Channels	**Internet**	N/A
	Intranet	N/A
	Extranet	N/A
	Peer to Peer (P2P)	N/A
	Virtual Private Network (VPN)	N/A
Service Requirements	**Legislative Requirements**	Section 508, Web Content Accessibility, Security, Privacy: Platform for Privacy Preferences, Privacy: Liberty Alliance
	Authentication / Single Sing-on (SSO)	N/A
	Hosting	Internal (within Agency), External (ISP/ASP/First Gov)
Supporting Network Services	**Supporting Network Services**	Internet Messaging Access Protocol / Post Office Protocol (IMAP / POP3), Multipurpose Internet Mail Extensions (MIME), Simple Mail Transfer Protocol (ESMTP), T.120, H323, Simple Network Management Protocol, Lightweight Directory Access Protocol (LDAP), Directory Services (X500), Dynamic Host Configuration Protocol, (DHCP); Domain Name System (DSN), Border Gateway Protocol (BGP), X.400
	Service Transport	Transport Control Protocol (TCP), Internet Protocol (IP), Hyper Text Transfer Protocol (HTTP), Hyper Text Transfer Protocol Secure (HTTPS), Wireless Application Protocol (WAP), File Transfer Protocol (FTP), IP Security (IPSEC)

TRM Service Standard and Service Specification details are include at the end of this document

TRM in relation to an Agency's Infrastructure



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FY'06 BOILER PLATE APPENDIX

Supporting Documentation and Reference Model Details

BRM - The Services for Citizens Business Area has been defined in detail and the Education LOB is included here

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Business Area: Services to Citizens	
Line of Business: Education - Education refers to those activities that impart knowledge or understanding of a particular subject to the public. Education can take place at a formal school, college, university or other training program. *This Line of Business includes all government programs that promote the education of the public, including both earned and unearned benefit programs.*	
Sub-function	**Description**
Elementary, Secondary, and Vocational Education	Elementary, secondary, and vocational education refers to the provision of education in elementary subjects (reading and writing and arithmetic) provided to young students at a grade school; education provided by a high school or college preparatory school; and vocational and technical education and training.
Higher Education	Higher Education refers to education beyond the secondary level; specifically, education provided by a college or university.
Cultural and Historic Preservation	Cultural and Historic Preservation involves all activities performed by the Federal Government to collect and preserve information and artifacts important to the culture and history of the United States and its citizenry and the education of U.S. citizens and the world.
Cultural and Historic Exhibition	Cultural and Historic Exhibition includes all activities under-taken by the U.S. government to promote education through the exhibition of cultural, historical, and other information, archives, art, etc.

BRM - The Mode of Delivery Business Area Federal Financial Assistance has been included here

Business Area: Mode of Delivery	
Category: Financial Vehicles	Financial Vehicles involve those monetary exchanges or transactions between Federal Government entities as well as between the Federal Government and non-Federal entities as a means to accomplishing a Federal goal or objective.
Line of Business/Internal Function: Federal Financial Assistance - The provision of earned and unearned financial or monetary-like benefits to individuals, groups, or corporations	
Sub-function	**Description**
Federal Grants (Non-State)	Federal Grants involve the disbursement of funds by the Federal Government to a non-Federal entity to help fund projects or activities. This includes the processes associated with grant administration, including the publication of funds availability notices, development of the grant application guidance, determination of grantee eligibility, coordination of the peer review/evaluation process for competitive grants, the transfer of funds, and the monitoring/oversight as appropriate.
Direct Transfers to Individuals-	Direct Transfers to Individuals involves the disbursement of funds from the Federal Government directly to beneficiaries (individuals or organizations) who satisfy Federal eligibility requirements with no restrictions imposed on the recipient as to how the money is spent. Direct Transfers include both earned and unearned Federal Entitlement programs such as Medicare, Social Security, unemployment benefits, etc.
Subsidies	Subsidies involve Federal Government financial transfers that reduce costs and/or increase revenues of producers.
Tax Credits	Tax Credits allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability designed to encourage certain kinds of activities or to aid taxpayers in special circumstances.

BRM - The Mode of Delivery Business Area Credit and Insurance LOB has been included here

Business Area: Mode of Delivery	
Category: Financial Vehicles	Financial Vehicles involve those monetary exchanges or transactions between Federal Government entities as well as between the Federal Government and non-Federal entities as a means to accomplishing a Federal goal or objective.
Line of Business/Internal Function: Credit and Insurance - involves the use of government funds to cover the subsidy cost of a direct loan or loan guarantee or to protect/indemnify members of the public from financial losses.	
Sub-function	**Description**
General Insurance	General Insurance involves providing protection to individuals or entities against specified risks. The specified protection generally involves risks that private sector entities are unable or unwilling to assume or subsidize and where the provision of insurance is necessary to achieve social objectives.
Loan Guarantees	Loan guarantees involve any guarantee, insurance, or other pledge with respect to the payment of all or a part of the principal or interest on any debt obligation of a non-Federal borrower to a non-Federal lender, but does not include the insurance of deposits, shares, or other withdrawable accounts in financial institutions.
Direct Loans	Direct loans involve a disbursement of funds by the Government to a non-Federal borrower under a contract that requires the repayment of such funds with or without interest.

BRM - Support Delivery of Services Business Area- Controls and Oversight details

Business Area: Support Delivery of Services	
Line of Business: CONTROLS AND OVERSIGHT - Controls and Oversight ensures that the operations and programs of the Federal Government and its external business partners comply with applicable laws and regulations and prevent waste, fraud, and abuse.	
Sub-function	**Description**
Corrective Action	Corrective Action involves the enforcement of activities to remedy internal or external programs that have been found non-compliant with a given law, regulation, or policy.
Program Evaluation	Program Evaluation involves the analysis of internal and external program effectiveness and the determination of corrective actions as appropriate.
Program Monitoring	Program Monitoring involves the data-gathering activities required to determine the effectiveness of internal and external programs and the extent to which they comply with related laws, regulations, and policies.

BRM - Support Delivery of Services Business Area- Internal Risk Management and Mitigation details

Business Area: Support Delivery of Services	
Line of Business: INTERNAL RISK MANAGEMENT AND MITIGATION - Controls and Oversight ensures that the operations and programs of the Federal Government and its external business partners comply with applicable laws and regulations and prevent waste, fraud, and abuse.	
Sub-function	**Description**
Contingency Planning	Contingency Planning involves the actions required to plan for, respond to, and mitigate damaging events.
Continuity of Operations	Continuity of Operations involves the activities associated with the identification of critical systems and processes, and the planning and preparation required to ensure that these systems and processes will be available in the event of a catastrophic event.
Service Recovery	Service Recovery involves the internal actions necessary to develop a plan for resuming operations after a catastrophic event occurs.

BRM - Support Delivery of Services - Planning and Resource Allocation

Business Area: Support Delivery of Services	
Line of Business: PLANNING AND RESOURCE ALLOCATION - Planning and Resource Allocation involves the activities of determining strategic direction, identifying and establishing programs and processes, and allocating resources (capital and labor) among those programs and processes.	
Sub-function	**Description**
Budget Formulation	Budget Formulation involves all activities undertaken to determine priorities for future spending and to develop an itemized forecast of future funding and expenditures during a targeted period of time. This includes the collection and use of performance information to assess the effectiveness of programs and develop budget priorities.
Capital Planning	Capital Planning involves the processes for ensuring that appropriate investments are selected for capital expenditures
Enterprise Architecture	Enterprise Architecture is an established process for describing the current state and defining the target state and transition strategy for an organization's people, processes, and technology.
Strategic Planning	Strategic Planning entails the determination of annual and long-term goals and the identification of the best approach for achieving those goals.
Workforce Planning	Workforce Planning involves the processes for identifying the workforce competencies required to meet the agency's strategic goals and for developing the strategies to meet these requirements.
Management Improvement	Management Improvement includes all efforts to gauge the ongoing efficiency of business processes and identify opportunities for reengineering or restructuring.

BRM - Support Delivery of Services - Revenue Collection

Business Area: Support Delivery of Services	
Line of Business: Revenue Collection - Revenue Collection includes the collection of Government income from all sources. Note: Tax collection is accounted for in Taxation Management Sub-Function in the General Government Line of Business.	
Sub-function	**Description**
Debt Collection	Debt Collection supports activities associated with the collection of money owed to the U.S. government from both foreign and domestic sources.
User Fee Collection	User fee collection involves the collection of fees assessed on individuals or organizations for the provision of Government services and for the use of Government goods or resources (i.e. National Parks).
Federal Asset Sales	Federal Asset Sales encompasses the activities associated with the acquisition, oversight, tracking, and sale of non-internal assets managed by the Federal Government with a commercial value and sold to the private sector.

BRM - Support Delivery of Services - Regulatory Development

Business Area: Support Delivery of Services	
Line of Business: REGULATORY DEVELOPMENT - Regulatory Development involves activities associated developing regulations, policies, and guidance to implement laws.	
Sub-function	**Description**
Policy and Guidance Development	Policy and Guidance Development involves the creation and dissemination of guidelines to assist in the interpretation and implementation of regulations.
Public Comment Tracking	Public Comment Tracking involves the activities of soliciting, maintaining, and responding to public comments regarding proposed regulations.
Regulatory Creation	Regulatory Creation involves the activities of researching and drafting proposed and final regulations.
Rule Publication	Rule Publication includes all activities associated with the publication of a proposed or final rule in the Federal Register and Code of Federal Regulations.

BRM - Support Delivery of Services - Public Affairs

Business Area: Support Delivery of Services	
Line of Business: PUBLIC AFFAIRS - Public Affairs involves the exchange of information and communication between the Federal Government, citizens and stakeholders in direct support of citizen services, public policy, and/or national interest.	
Sub-function	**Description**
Customer Services	Customer Services supports activities associated with providing an agency's customers with information regarding the agency's service offerings and managing the interactions and relationships with those customers.
Official Information Dissemination	Official Information Dissemination includes all efforts to provide official government information to external stakeholders through the use of various types of media, such as video, paper, web, etc.
Product Outreach	Product Outreach relates to the marketing of government services products, and programs to the general public in an attempt to promote awareness and increase the number of customers/beneficiaries of those services and programs.
Public Relations	Public Relations involves the efforts to promote an organization's image through the effective handling of citizen concerns.

BRM - Support Delivery of Services - Legislative Relations

Business Area: Support Delivery of Services	
Line of Business: LEGISLATIVE RELATIONS - Legislative Relations involves activities aimed at the development, tracking, and amendment of public laws through the legislative branch of the Federal Government.	
Sub-function	**Description**
Legislation Tracking	Legislation Tracking involves monitoring legislation from introduction to enactment.
Legislation Testimony	Legislation Testimony involves activities associated with providing testimony/evidence in support of, or opposition to, legislation.
Proposal Development	Proposal Development involves drafting proposed legislation that creates or amends laws subject to Congressional action.
Congressional Liaison Operations	Congressional Liaison Operations involves all activities associated with supporting the formal relationship between a Federal Agency and the U.S. Congress.

BRM - Support Delivery of Services - General Government

Business Area: Support Delivery of Services

Line of Business: GENERAL GOVERNMENT - General Government involves the general overhead costs of the Federal Government, including legislative and executive activities; provision of central fiscal, personnel, and property activities; and the provision of services that cannot reasonably be classified in any other Line of Business. As a normal rule, all activities reasonably or closely associated with other Lines of Business or Sub-Functions shall be included in those Lines of Business or Sub-Functions rather than listed as a part of general government. This Line of Business is reserved for central government management operations; agency-specific management activities would not be included here.

Sub-function	Description
Central Fiscal Operations	Central Fiscal Operations includes the fiscal operations that the Department of Treasury performs on behalf of the Government. Note: Tax-related functions are included within the Taxation Management Sub-Function.
Legislative Functions	Legislative functions include the costs of the Legislative Branch except for the Tax Court, the Library of Congress, and the Government Printing Office revolving fund.
Executive Functions	Executive Functions involve the Executive Office of the President.
Central Property Management	General Property Management involves most of the operations of the General Services Administration.
Central Personnel Management	Central Personnel Management involves most of the operating costs of the Office of Personnel Management and related agencies.
Taxation Management	Taxation Management includes activities associated with the implementation of the Internal Revenue Code and the collection of taxes in the United States and abroad.
Central Records and Statistics Management	Central Records and Statistics Management involves the operations surrounding the management of official documents, statistics, and records for the entire Federal Government. This Sub-Function is intended to include the management of records and statistics for the Federal government as a whole, such as the records management performed by NARA or the statistics and data collection performed by the Bureau of the Census.

Note: Many agencies perform records and statistics management for a particular business function and as such should be mapped to that line of business. The Central Records and Statistics Management is intended for functions performed on behalf of the entire Federal government.

BRM - Management of Government Resources – Human Resource Management

Business Area: Management of Government Resources	
Line of Business: HUMAN RESOURCE MANAGEMENT - Human Resource Management involves all activities associated with the recruitment and management of personnel.	
Sub-function	**Description**
Benefits Management	Legislation Benefits Management involves the administration of entitled benefits for Federal personnel such as retirement, medical, disability, and insurance.
Personnel Management	Personnel Management involves the general management of the federal workforce, including but not limited to functions such as personnel action processing, employee tracking, position classification and management, discipline/grievance, advancement and awards, labor relations, etc.
Payroll Management and Expense Reimbursement	Payroll Management and Expense Reimbursement involves the administration and determination of Federal employee compensation. Note: See Payments Sub-Function for the actual payment of salary and expenses.
Resource Training And Development	Resource Training and Development refers to the active building of competencies in staff members through formal, technical, or other means of education.
Security Clearance Management	Security Clearance Management refers to the processes associated with ensuring employees, contractors, and others have been approved to enter Federal buildings, utilize Federal services, and access sensitive information. This includes eligibility determination, badge issuance, clearance tracking, and security verification services.
Staff Recruitment And Employment	Staff Recruitment and Employment refers to the active marketing and hiring of personnel to capitalize on opportunities and fill vacancies within an organization as well as the activities focused on retaining staff.

BRM - Management of Government Resources – Supply Chain Management

Business Area: Management of Government Resources	
Line of Business: SUPPLY CHAIN MANAGEMENT - Supply Chain Management involves the purchasing, tracking, and overall management of goods and services.	
Sub-function	**Description**
Goods Acquisition	Goods Acquisition involves the procurement of physical goods, products, and capital assets to be used by the Federal government.
Inventory Control	Inventory Control refers to the tracking of information related to procured assets and resources with regard to quantity, quality, and location.
Logistics Management	Logistics Management involves the planning and tracking of personnel and their resources in relation to their availability and location.
Services Acquisition	Services Acquisition involves the oversight and/or management of contractors and service providers from the private sector.

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Business Area: Management of Government Resources

Line of Business: INFORMATION AND TECHNOLOGY MANAGEMENT - Information and Technology Management involves the coordination of information technology resources and systems required to support or provide a citizen service.

Sub-function	Description
Lifecycle/Change Management	Lifecycle/Change Management involves the processes that facilitate a smooth evolution, composition, and workforce transition of the design and implementation of changes to agency resources such as assets, methodologies, systems, or procedures.
System Development	System Development supports all activities associated with the in-house design and development of software applications.
System Maintenance	System Maintenance supports all activities associated with the maintenance of in-house designed software applications.
IT Infrastructure Maintenance	IT Infrastructure Maintenance involves the planning, design, and maintenance of an IT Infrastructure to effectively support automated needs (i.e. platforms, networks, servers, printers, etc.).
IT Security	IT Security involves all functions pertaining to the securing of Federal data and systems through the creation and definition of security policies, procedures and controls covering such services as identification, authentication, and non-repudiation.
Record Retention	Records Retention involves the operations surrounding the management of the official documents and records for an agency.
Information Management	Information Management involves the coordination of information collection, storage, and dissemination, and destruction as well as managing the policies, guidelines, and standards regarding information management.

BRM - Management of Government Resources- Administrative Management

Business Area: Management of Government Resources	
Line of Business: ADMINISTRATIVE MANAGEMENT - Administrative Management involves the day-to-day management and maintenance of the internal infrastructure.	
Sub-function	**Description**
Facilities, Fleet, And Equipment Management	Facilities, Fleet, and Equipment Management involves the maintenance, administration, and operation of office buildings, fleets, machinery, and other capital assets that are possessions of the Federal Government.
Help Desk Services	Help Desk Services involves the management of a service center to respond to government and contract employees' technical and administrative questions.
Security Management	Security Management involves the physical protection of an organization's personnel, assets, and facilities.
Travel	Travel involves the activities associated with planning, preparing, and monitoring of business related travel for an organization's employees.
Workplace Policy Development And Management	Workplace Policy Development and Management includes all activities required to develop and disseminate workplace policies such as dress codes, time reporting requirements, telecommuting, etc.

Business Area: Management of Government Resources

Line of Business: FINANCIAL MANAGEMENT – The use of financial information to measure, operate and predict the effectiveness and efficiency of an entity's activities in relation to its objectives. The ability to obtain and use such information is usually characterized by having in place policies, practices, standards, and a system of controls that reliably capture and report activity in a consistent manner.

Sub-function	Description
Accounting	Accounting entails accounting for assets, liabilities, fund balances, revenues and expenses associated with the maintenance of Federal funds and expenditure of Federal appropriations (Salaries and Expenses, Operation and Maintenance, Procurement, Working Capital, Trust Funds, etc.), in accordance with applicable Federal standards (FASAB, Treasury, OMB, GAO, etc.).
Budget and Finance	Budget and Finance includes the management of the Federal budget process including the development of plans and programs, budgets, and performance outputs and outcomes as well as financing Federal programs and operations through appropriation and apportionment of direct and reimbursable spending authority, fund transfers, investments and other financing mechanisms. **Payments** - Payments include disbursements of Federal funds, via a variety of mechanisms, to Federal and private individuals, Federal agencies, state, local and international Governments, and the private sector, to effect payment for goods and services, or distribute entitlements, benefits, grants, subsidies, loans, or claims.
Collections and Receivables	Collections and Receivables includes deposits, fund transfers, and receipts for sales or service.
Asset and Liability Management	Assets and Liability Management provide accounting support for the management of assets and liabilities of the Federal government.
Reporting and Information	Reporting and Information includes providing financial information, reporting and analysis of financial transactions.

PRM Superset* FY'06 Mission and Business Results / Customer Results

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Mission and Business Results**	**Education (Services for Citizens)**	Higher Education				
	Controls and Oversight (Support Delivery of Services)	Corrective Action				
		Program Evaluation				
		Program Monitoring	Removal from GAO's High Risk List	FSA designated by GAO as High Risk	Removal from GAO's High Risk designation	Next opportunity for removal FY 04.
	Internal Risk Management (Support Delivery of Services)	Contingency Planning				
		Continuity of Operations				
		Service Recovery				
	Legislative Relations (Support Delivery of Services)	Legislation Tracking				
		Legislation Testimony				
		Proposal Development				
		Congressional Liaison Operations				
	Regulatory Development (Support Delivery of Services)	Policy and Guidance Development				
		Public Comment				
		Regulatory Creation				
		Rule Publication				

***Information Provided by the FSA Performance Team**

**** Measurement Area Mission and Business Results should include the name of the appropriate Business Area and LOB for the measurement category generic (e.g. Services for Citizens could be Education: Higher Education).**

PRM Superset* FY'06 Mission and Business Results / Customer Results

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Mission and Business Results**	**Planning and Resource Allocation (Support Delivery of Services)**	Budget Formulation				
		Capital Planning				
		Enterprise Architecture				
		Strategic Planning				
		Budget Execution				
		Workforce Planning				
		Management Improvement				
	Public Affairs (Support Delivery of Services)	Customer Services				
		Official Information Dissemination				
		Product Outreach				
		Public Relations				
	Revenue Collection (Support Delivery of Services)	Debt Collection				
		User Fee Collection				
		Federal Asset Sales				

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PRM Superset* FY'06 Mission and Business Results / Customer Results

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Mission and Business Results**	**General Government (Support Delivery of Services)**	Central Fiscal Operations				
		Legislative Operations				
		Executive Functions				
		Central Property Management				
		Central Personnel Management				
		Taxation Management				
		Central Records and Statistics Management				
	Administrative Management (Management of Government Resources)	Facilities, Fleet and Equipment Management				
		Help Desk Services				
		Security Management				
		Travel				
		Workplace Policy Development and Management				

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PRM Superset* FY'06 Mission and Business Results / Customer Results

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Mission and Business Results**	**Financial Management (Management of Government Resources)**	Accounting				
		Budget and Finance				
		Payments				
		Collections and Receivables				
		Asset and Liability Management				
		Reporting and Information				
	Human Resources (Management of Government Resources)	Benefits Management				
		Personnel Management				
		Payroll Management and Expense Reimbursement				
		Resource Training and Development				
		Security Clearance Management				
		Staff Recruitment and Employment				

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PRM Superset* FY'06 Mission and Business Results / Customer Results

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Mission and Business Results**	**Information and Technology Management (Management of Government Resources)**	Lifecycle/ Change Management				
		System Development				
		System Maintenance				
		Infrastructure Maintenance				
		IT Security				
		Record Retention				
		Information Management				
	Supply Chain Management (Management of Government Resources)	Goods Acquisition				
		Inventory Control				
		Logistics Management				
		Services Acquisition				

***Information Provided by the FSA Performance Team**

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PRM Superset* FY'06 Mission and Business Results / Customer Results

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Customer Results	**Customer Benefit**	Customer Satisfaction	Percent Satisfied with application/initiative	Not available until 2003		
		Customer Retention				
		Customer Complaints	Average Complaint Rate application/initiative Complaints/Total Customers			
		Customer Impact or Burden				
		Customer Training				
	Service Coverage	New Customers and Market Penetration				
		Frequency and Depth				
		Service Efficiency				
		Response Time	Average initial response time			
			Average time to resolve customer inquiry			

***Information Provided by the FSA Performance Team**

FSA PRM Superset* FY'06 Customer Results continued

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Customer Results (continued)	**Timeliness and Responsiveness**	Delivery Time	Number/percentage (#/%) of products (releases) delivered on time			
	Service Quality	Accuracy of Service or Product Delivered	Number of problem-related contacts w/applications (bugs, etc) /total customer contact			
			Number/percentage (#/%) inquiries solved successfully by first contact			
	Service Accessibility	Access				
		Availability				
		Automation				
		Integration				

***Information Provided by the FSA Performance Team**

FSA PRM Superset* FY'06 Process and Activities

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Processes and Activities	**Financial**	Financial Management	Funds Substantiated:	98%	99%	
			Percentage of Funds Substantiated within 30 days			
		Costs	Unit costs			
		Planning				
		Savings and Cost Avoidance	Dollars that would otherwise have been spent but were not			
	Productivity and Efficiency	Productivity				
		Efficiency				
	Cycle Time and Timeliness	Cycle Time	Percentage of originations received, processed and acknowledged within 24 hours			
		Timeliness	Percentage of Funds available within 36 hours of request			

***Information Provided by the FSA Performance Team**

FSA PRM Superset* FY'06 Process and Activities continued

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Processes and Activities (continued)	**Quality**	Errors				
		Complaints				
	Security and Privacy	Security				
		Privacy				
	Management and Innovation	Participation				
		Policies				
		Compliance				
		Risk				
		Knowledge Management				
		Innovation Improvement				

***Information Provided by the FSA Performance Team**

FSA PRM Superset* FY'06 Technology

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Technology	**Financial**	Overall Costs	Total IT Costs/ Total Operating Costs *(May be really hard to separate in a contract)*			
		Licensing Costs				
		Support Costs				
		Operations and Management Costs				
		Training and User Costs	Application Costs per user of the Application			
	Quality	Functionality				
		IT Composition				
		Compliance and Deviations				
	Efficiency	Response Time	Website response time is 95% within 15 seconds			
		Interoperability				
		Accessibility				
		Load Levels	Number of simultaneous end-users an application or system can provide service to.			
		Improvement				

***Information Provided by the FSA Performance Team**

FSA PRM Superset* FY'06 Technology Continued

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Technology (continued)	**Information and Data**	External Data Sharing				
		Data Standardization or Tagging	Number of relevant data elements for which standards and definitions exist divided by the number of data elements			
		Internal Data Sharing				
		Data Reliability and Quality	Error detection rate 3.5% overall. Less than 1% when filed electronically.			
		Data Storage				
	Reliability and Availability	Availability	The time systems or applications are available to end-users divided by the total time in the relevant time period.			
		Reliability				
	Effectiveness	User Satisfaction				
		User Requirements				
		IT Contribution to Process, Customer, Mission	Reduction in paper submissions			

***Information Provided by the FSA Performance Team**

FSA PRM Superset Human Capital and Other Fixed Assets

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Human Capital	**Not Define in PRM v 1.0**					

Measurement Area	Measurement Category	Measurement Indicator		Baseline	Planned Improvements to the Baseline	Actual Results
		Generic	Operational			
Other Fixed Assets	**Not Define in PRM v 1.0**					

SRM - capabilities that are used to plan, schedule and control the activities between the customer and the enterprise;

Service Domain: Customer Services

Service Type: CUSTOMER RELATIONSHIP MANAGEMENT- defines the set of capabilities that are used to plan, schedule and control the activities between the customer and the enterprise both before and after a product or service is offered.

Service Component	Description
Call Center Management	Defines the set of capabilities that handle telephone sales and/or service to the end customer.
Customer Analytics	Defines the set of capabilities that allow for the analysis of an organization's customers as well as the scoring of third party information as it relates to an organization's customers.
Sales and Marketing	Defines the set of capabilities that facilitate the promotion of a product or service and capture of new business.
Product Management*	Defines the set of capabilities that facilitate the creation and maintenance of products and services.
Brand Management*	*Defines the set of capabilities that support the application of a trade name to a product or service as well as developing an awareness for the name.*
Customer / Account Management	*Defines the set of capabilities that support the retention and delivery of a service or product to an organization's clients*
Contact Management	Defines the set of capabilities that keep track of people and the related activities of an organization.
Partner Relationship Management	Defines the set of capabilities that are used to plan and control the activities between an organization, its stakeholders and business partners, including third parties that support services to an organization's stakeholders
Customer Feedback	Defines the set of capabilities that are used to collect, analyze and handle comments and feedback from an organization's customers.
Surveys	Defines the set of capabilities that are used to collect useful information from an organization's customers

Note: "*" denotes change to the reference model

SRM - capabilities that allow an organization's customers to change a user interface and they way that data is displayed;

Service Domain: Customer Services	
Service Type: CUSTOMER PREFERENCES defines the set of capabilities that allow an organization's customers to change a user interface and the way that data is displayed.	
Service Component	**Description**
Personalization	Defines the set of capabilities to change a user interface and how data is displayed.
Subscriptions	Defines *the set of capabilities that allow a customer to join a forum, listserv, or mailing list.*
Sales and Marketing	Defines the set of capabilities that facilitate the promotion of a product or service and capture of new business.
Alerts and Notifications	*Defines the set of capabilities that allow a customer to be contacted in relation to a subscription or service of interest.*
Profile Management	*Defines the set of capabilities that allow for the maintenance and modification of a customer's account information related to their profile.*

Note: "*" denotes change to the reference model

SRM - capabilities that allow customers to proactively seek assistance and service from an organization;

Service Domain: Customer Services	
Service Type: CUSTOMER INITIATED ASSISTANCE defines the set of capabilities that allow customers to proactively seek assistance and service from an organization.	
Service Component	**Description**
Online Help	Defines the set of capabilities that provide an electronic interface to customer assistance.
Online Tutorials	Defines the set of capabilities that provide an electronic interface to educate and assist customers
Self-Service	Defines the set of capabilities that allow an organization's customers to sign up for a particular service at their own initiative.
Reservations / Registration	*Defines the set of capabilities that allow electronic enrollment and confirmations for services.*
Multi-Lingual Support	*Defines the set of capabilities that allow access to data and information in multiple languages.*
Assistance Request	*Defines the set of capabilities that support the solicitation of support from a customer.*
Scheduling*	Defines *the set of capabilities that support the plan for performing work or service to meet the needs of an organization's customers.*

Note: "*" denotes change to the reference model

SRM - capabilities for automatic monitoring and routing of documents to the users responsible for working on them;

Service Domain: Process Automation Services	
Service Type: TRACKING AND WORKFLOW defines the set of capabilities for automatic monitoring and routing of documents to the users responsible for working on them to support each step of the business cycle.	
Service Component	**Description**
Process Tracking	Defines the set of capabilities to allow the monitoring of activities within the business cycle.
Case / Issue Management*	Defines *the set of capabilities for managing the life cycle of a particular claim or investigation within an organization to include creating, routing, tracing, assignment and closing of a case as well as collaboration among case handlers.*
Conflict Resolution	Defines the set of capabilities that support the conclusion of contention or differences within the business cycle.

Note: "*" denotes change to the reference model

SRM - capabilities for the automatic directing, assignment, or allocation of time for a particular action or event;

Service Domain: Process Automation Services	
Service Type: ROUTING AND SCHEDULING defines the set of capabilities for the automatic directing, assignment, or allocation of time for a particular action or event.	
Service Component	**Description**
Inbound Correspondence Management*	Defines the set of capabilities for the management of externally initiated communication between an organization and its stakeholders.
Outbound Correspondence Management*	Defines the set of capabilities for the management of internally initiated communication between an organization and its stakeholders.

Note: "*" denotes change to the reference model

SRM - capabilities that regulate the activities surrounding the business cycle of an organization;

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Service Domain: Business Management Services

Service Type: **MANAGEMENT OF PROCESS** defines the set of capabilities that regulate the activities surrounding the business cycle of an organization.

Service Component	Description
Change Management	Defines the set of capabilities that control the process for updates or modifications to the existing documents, software or business processes of an organization.
Configuration Management	Defines *the set of capabilities that control the hardware and software environments, as well as documents of an organization.*
Requirements Management	Defines the set of capabilities for gathering, analyzing and fulfilling the needs and prerequisites of an organization's efforts.
Program / Project Management	defines the set of capabilities for the management and control of a particular effort of an organization.
Governance / Policy Management	defines the set of capabilities intended to influence and determine decisions, actions, business rules and other matters within an organization.
Quality Management	defines the set of capabilities intended to help determine the level of assurance that a product or service will satisfy certain requirements.
Business Rule Management*	defines the set of capabilities for the management of the enterprise processes that support an organization and its policies.
Risk Management*	defines the set of capabilities that support the identification and probabilities or chances of hazards as they relate to a task, decision or long-term goal.

Note: "*" denotes change to the reference model

SRM - capabilities for planning, scheduling and controlling a supply chain;

Service Domain: Business Management Services	
Service Type: Supply Chain Management (SCM) defines the set of capabilities for planning, scheduling and controlling a supply chain and the sequence of organizations and functions that mine, make or assemble materials and products from manufacturer to wholesaler to retailer to consumer.	
Service Component	**Description**
Procurement*	Defines the set of capabilities that support the ordering and purchasing of products and services.
Sourcing Management*	*Defines the set of capabilities that support the supply of goods or services as well as the tracking and analysis of costs for these goods.*
Catalog Management*	*Defines the set of capabilities that support the listing of available products or services that an organization offers.*
Order/Purchasing*	*Defines the set of capabilities that allow the placement of request for a product.*
Invoice / Requisition Tracking and Approval*	*Defines the set of capabilities that support the identification of where a shipment or delivery is within the business cycle.*
Storefront / Shopping Cart*	*Defines the set of capabilities that support the online equivalent of the supermarket cart, where orders and merchandise are placed.*
Returns Management*	*Defines the set of capabilities for collecting, analyzing, and resolving product returns or service cancellations.*

Note: "*" denotes change to the reference model

SRM - capabilities that support both collaboration and communication within an organization;

Service Domain: Business Management Services	
Service Type: Organizational Management defines the set of capabilities that support both collaboration and communication within an organization.	
Service Component	**Description**
Workgroup/ Groupware	Defines the set of capabilities that support multiple users working on related tasks.
Network Management	Defines *the set of capabilities involved in monitoring and maintaining a Communications network in order to diagnose problems, gather statistics and provide general usage.*

Note: "*" denotes change to the reference model

SRM - capabilities that manage the financial assets and capital of an organization;

Service Domain: Business Management Services	
Service Type: Investment Management defines the set of capabilities that manage the financial assets and capital of an organization.	
Service Component	**Description**
Strategic Planning and Management	Defines the set of capabilities that support the determination of long-term goals and the identification of the best approach for achieving those goals
Portfolio Management	Defines *the set of capabilities that support the administration of a group of investments held by an organization.*
Performance Management	*Defines* the set of capabilities for measuring the effectiveness of an organization's financial assets and capital.

Note: "*" denotes change to the reference model

SRM - capabilities that manage the storage, maintenance and retrieval of documents and information of a system or website;

Service Domain: Digital Asset Services	
Service Type: Content Management defines the capabilities that manage the storage, maintenance and retrieval of documents and information of a system or website.	
Service Component	**Description**
Content Authoring	Defines the capabilities that allow for the creation of tutorials, CBT courseware, Websites, CD-ROMs and other interactive programs
Content Review and Approval	*Defines the capabilities that allow for the approval of interactive programs.*
Tagging and Aggregation	Defines the set of capabilities that support the identification of specific content within a larger set of content for collection and summarization.
Content Publishing and Delivery	Defines the set of capabilities that allow for the propagation of interactive programs.
Syndication Management	Defines the set of capabilities that control and regulate an organization's brand.

Note: "*" denotes change to the reference model

SRM - capabilities that control the capture and maintenance of an organization's documents and files;

Service Domain: Digital Asset Services	
Service Type: Document Management defines the set of capabilities that control the capture and maintenance of an organization's documents and files.	
Service Component	**Description**
Document Imaging and OCR	Defines the set of capabilities that support the scanning of physical documents for use electronically.
Document References	Defines the set of capabilities that support the redirection to other documents and information for related content.
Document Revisions	Defines the set of capabilities that support the versioning and editing of content and documents.
Library Storage	Defines the set of capabilities that support document and data warehousing and archiving.
Document Review and Approval	Defines the set of capabilities that support the editing and commendation of documents before releasing them.
Document Conversion	Defines the set of capabilities that support the changing of files from one type of format to another.
Indexing	Defines the set of capabilities that support the rapid retrieval of documents through a structured numbering construct.
Classification*	Defines the set of capabilities that support the categorization of documents.

Note: "*" denotes change to the reference model

SRM - capabilities that support the identification, gathering and transformation of documents, reports and other sources into meaningful information;

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Service Domain: Digital Asset Services

Service Type: Knowledge Management defines the set of capabilities that support the identification, gathering and transformation of documents, reports and other sources into meaningful information.

Service Component	Description
Information Retrieval	Defines the set of capabilities that allow access to data and information for use by an organization and its stakeholders.
Information Mapping / Taxonomy	Defines *the set of capabilities that support the creation and maintenance of relationships between data entities, naming standards and categorization.*
Information Sharing	*Defines* the set of capabilities that support the use of documents and data in a multi user environment for use by an organization and its stakeholders.
Categorization	Defines the set of capabilities that allow classification of data and information into Specific layers or types to support an organization.
Knowledge Engineering	Defines the set of capabilities that support the translation of knowledge from an expert into the knowledge base of an expert system.
Knowledge Capture	Defines the set of capabilities that facilitate collection of data and information.
Knowledge Discovery	Defines the set of capabilities that facilitate the identification of useful information from data.
Knowledge Distribution and Delivery	Defines the set of capabilities that support the transfer of knowledge to the end customer.

Note: "*" denotes change to the reference model

SRM - capabilities to support the storage, protection, archiving, classification and retirement of documents and information;

Service Domain: Digital Asset Services	
Service Type: Records Management defines the set of capabilities to support the storage, protection, archiving, classification and retirement of documents and information.	
Service Component	**Description**
Record Linking / Association	Defines the set of capabilities that support the correlation between logical data and information sets.
Document Classification	*Defines the set of capabilities that support the categorization of documents and artifacts, both electronic and physical.*
Document Retirement	*Defines* the set of capabilities that support the termination or cancellation of documents and artifacts used by an organization and its stakeholders.
Digital Rights Management	Defines the set of capabilities that support the claim and ownership of intellectual capital and artifacts belonging to an organization.

Note: "*" denotes change to the reference model

SRM - capabilities that support the examination of business issues, problems and their solutions;

Service Domain: Business Analytical Services	
Service Type: **Analysis and Statistics** defines the set of capabilities that support the examination of business issues, problems and their solutions.	
Service Component	**Description**
Modeling	Defines the set of capabilities that support the simulating of conditions or activities by performing a set of equations on a set of data.
Predictive	*Defines the set of capabilities that support the foretelling of something in advance by the use of data.*
Simulation	Defines the set of capabilities that support the representation of the interaction between real-world objects.
Mathematical	Defines the set of capabilities that support the use of mathematical functions and algorithms for the analysis of data.
Structural / Thermal	Defines the set of capabilities that support the use of data flow and data modeling diagrams for applying systematic analysis of data.
Radiological	Defines the set of capabilities that support the use of radiation and xray technologies for analysis and scientific examination.
Forensics	Defines the set of capabilities that support the analysis of physical elements using science and technology for investigative and legal purposes.

Note: "*" denotes change to the reference model

SRM - capabilities that support the conversion of data into graphical or picture form;

Service Domain: Business Analytical Services	
Service Type: Visualization defines the set of capabilities that support the conversion of data Into graphical or picture form.	
Service Component	**Description**
Graphing / Charting	Defines the set of capabilities that support the presentation of information in the form of diagrams or tables.
Imagery	*Defines the set of capabilities that support the creation of film or electronic images from pictures, paper forms or graphics for static or dynamic use.*
Multimedia	Defines the set of capabilities that support the representation of information in more than one form to include text, audio, graphics, animated graphics and full motion video.
Mapping / Geospatial / Elevation / GPS	Defines the set of capabilities that support the use of elevation, latitude, and longitude coordinates.
CAD	Defines the set of capabilities that support the design of products with computers. defines the set of capabilities that support the design of products with computers.

Note: "*" denotes change to the reference model

SRM - capabilities that support information that pertains to the history, current status or future projections of an organization;

Service Domain: Business Analytical Services	
Service Type: Business Intelligence defines the set of capabilities that support information that pertains to the history, current status or future projections of an organization.	
Service Component	**Description**
Demand Forecasting / Management	Defines the set of capabilities that facilitate the prediction of sufficient production to meet an organization's sales of a product or service.
Balanced Scorecard	*Defines the set of capabilities that support the listing and analyzing of both positive and negative impacts associated with a decision.*
Decision Support and Planning	Defines the set of capabilities that support the analyze information and predict the impact of decisions before they are made.
Data Mining	Defines the set of capabilities that support the exploring and analyzing of detailed business transactions to uncover patterns and relationships within the business activity and history.

Note: "*" denotes change to the reference model

SRM - capabilities that support the organization of data into useful information;

Service Domain: Business Analytical Services	
Service Type: **Reporting** defines the set of capabilities that support the organization of data into useful information	
Service Component	**Description**
Ad Hoc	Defines the set of capabilities that support the use of dynamic reports on an as needed basis.
Standardized / Canned	*Defines the set of capabilities that support the use of preconceived or pre-written reports.*
OLAP	Defines the set of capabilities that support the analysis of information that has been summarized into multidimensional views and hierarchies.

Note: "*" denotes change to the reference model

SRM - capabilities that support the usage, processing and general administration of unstructured information;

Service Domain: Back Office Services	
Service Type: Data Management defines the set of capabilities that support the usage, processing and general administration of unstructured information.	
Service Component	**Description**
Data Exchange	Defines the set of capabilities that support the interchange of information between multiple systems or applications.
Data Mart	*Defines the set of capabilities that support a subset of a data warehouse for a single department or function within an organization.*
Data Warehouse	Defines the set of capabilities that support the archiving and storage of large volumes of data.
Meta Data Management	Defines the set of capabilities that support the maintenance and administration of data that describes data.
Data Cleansing	Defines the set of capabilities that support the removal of incorrect or unnecessary characters and data from a data source.
Extraction and Transformation	Defines the set of capabilities that support the manipulation and change of data.
Loading and Archiving	Defines the set of capabilities that support the population of a data source with external data.
Data Recovery*	Defines the set of capabilities that support the restoration and stabilization of data sets to a consistent, desired state.
Data Classification*	Defines the set of capabilities that allow the classification of data. defines the set of capabilities that allow the classification of data.

Note: "*" denotes change to the reference model

SRM - capabilities that support the recruitment and management of personnel;

Service Domain: Back Office Services	
Service Type: **Human Resources** defines the set of capabilities that support the recruitment and management of personnel.	
Service Component	**Description**
Recruiting	Defines the set of capabilities that support the identification and hiring of employees for an organization.
Resume Management	*Defines the set of capabilities that support the maintenance and administration of one's professional or work experience and qualifications.*
Career Development and Retention	Defines the set of capabilities that support the monitoring of performance as well as the professional growth, advancement, and retention of an organization's employees.
Time Reporting	Defines the set of capabilities that support the submission, approval and adjustment of an employee's hours.
Awards Management*	Defines the set of capabilities that support the recognition of achievement among employees of an organization.
Benefit Management	Defines the set of capabilities that support the enrollment and participation in an organization's compensation and benefits programs.
Retirement Management	Defines the set of capabilities that support the payment of benefits to retirees.
Personnel Management	Defines the set of capabilities that support the matching between an organization's employees and potential opportunities as well as the modification, addition and general upkeep of an organization's employee specific information.
Education / Training	Defines the set of capabilities that support the active building of employee capacities.
Health and Safety*	Defines the set of capabilities that support the security and physical well-being of an organization's employees.
Travel Management*	Defines the set of capabilities that support the transit and mobility of an organization's employees for business purposes.

Note: "*" denotes change to the reference model

SRM - capabilities that support the accounting practices and procedures that allow for the handling of revenues, funding and expenditures;

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Service Domain: Back Office Services

Service Type: **Financial Management** defines the set of capabilities that support the accounting practices and procedures that allow for the handling of revenues, funding and expenditures.

Service Component	Description
Billing and Accounting	Defines the set of capabilities that support the charging, collection and reporting of an organization's accounts.
Credit / Charge	*Defines the set of capabilities that support the use of credit cards or electronic funds transfers for payment and collection of products or services..*
Expense Management	Defines the set of capabilities that support the management and reimbursement of costs paid by employees or an organization.
Payroll	Defines the set of capabilities that involve the administration and determination of employees compensation.
Payment /Settlement	Defines the set of capabilities that support the process of accounts payable.
Debt Collection	Defines the set of capabilities that support the process of accounts receivable.
Revenue Management*	Defines the set of capabilities that support the allocation and re-investment of earned net credit or capital within an organization.
Auditing	Defines the set of capabilities that support the examination and verification of records for accuracy.
Data Classification	Defines the set of capabilities that allow the classification of data. defines the set of capabilities that allow the classification of data.
Activity Based Management	Defines the set of capabilities that support a defined, specific set of finance-related tasks for a given objective
Currency Translation	Defines the set of capabilities that support the calculations and differences among multiple mediums of exchange.
Financial Reporting*	Defines the set of capabilities that support the structured dissemination of financial data and information in both physical format and electronic media.

Note: "*" denotes change to the reference model

SRM - capabilities that support the acquisition, oversight and tracking of an organization's assets;

Service Domain: Back Office Services	
Service Type: Asset / Materials Management defines the set of capabilities that support the acquisition, oversight and tracking of an organization's assets.	
Service Component	**Description**
Property / Asset Management*	Defines the set of capabilities that support the identification, planning and allocation of an organization's physical capital and resources.
Asset Cataloging / Identification	*Defines the set of capabilities that support the listing and specification of available assets.*
Asset Transfer, Allocation and Maintenance*	Defines the set of capabilities that support the movement, assignment, and replacement of assets.
Facilitation Management	Defines the set of capabilities that support the construction, management and maintenance of facilities for an organization.
Computers / Automation Management*	Defines the set of capabilities that support the identification, upgrade, allocation and replacement of physical devices, including servers and desktops, used to facilitate production and process-driven activities.

Note: "*" denotes change to the reference model

SRM - capabilities that support the communication between hardware/software applications and the activities associated with deployment of software applications;

Service Domain: Back Office Services	
Service Type: Development and Integration defines the set of capabilities that support the communication between hardware/software applications and the activities associated with deployment of software applications.	
Service Component	**Description**
Legacy Integration	Defines the set of capabilities that support the communication between newer generation hardware/software applications and the previous, major generation of hardware/software applications.
Enterprise Application Integration	*Defines the set of capabilities that support the redesigning of disparate information systems into one system that uses a common set of data structures and rules.*
Data Integration	Defines the set of capabilities that support the organization of data from separate data sources into a single source using middleware or application integration as well as the modification of system data models to capture new information within a single system.
Instrumentation and Testing*	Defines the set of capabilities that support the validation of application or system capabilities and requirements.
Software Development*	Defines the set of capabilities that support the creation of both graphical and process application or system software.

Note: "*" denotes change to the reference model

SRM - capabilities that support the planning and supervision of an organization's personnel;

Service Domain: Back Office Services	
Service Type: Human Capital / Workforce Management defines the set of capabilities that support the planning and supervision of an organization's personnel.	
Service Component	**Description**
Resource Planning and Allocation	Defines the set or capabilities that support the means for assignment of employees and assets to sustain or increase an organization's business.
Skills Management	*Defines the set of capabilities that support the proficiency of employees in the delivery of an organization's products or services.*
Workforce Directory/Locator	Defines the set of capabilities that support the listing of employees and their whereabouts.
Team / Organization Management	Defines the set of capabilities that support the hierarchy structure and identification of employees within the various sub-groups of an organization.
Contingent Workforce Management	Defines the set of capabilities that support the continuity of operations for an organization's business through the identification of alternative organization personnel.
Workforce Acquisition / Optimization	Defines the set of capabilities that support the hiring and re-structuring of employees and their roles within an organization.

Note: "*" denotes change to the reference model

SRM - capabilities that support the protection of an organization's hardware/software and related assets;

Service Domain: Support Services

Service Type: Security Management defines the set of capabilities that support the protection of an organization's hardware/software and related assets.

Service Component	Description
Identification and Authentication*	Defines the set of capabilities that support obtaining information about those parties attempting to log on to a system or application for security purposes and the validation of those users.
Access Control	*Defines the set of capabilities that support the management of permissions for logging onto a computer or network.*
Encryption	Defines the set of capabilities that support the encoding of data for security purposes.
Intrusion Detection	Defines the set of capabilities that support the detection of illegal entrance into a computer system.
Verification	Defines the set of capabilities that support the confirmation of authority to enter a computer system, application or network.
Digital Signature	Defines the set of capabilities that guarantee the unaltered state of a file.
User Management	Defines the set of capabilities that support the administration of computer, application and network accounts within an organization.
Role/ Privilege Management	Defines the set of capabilities that support the granting of abilities to users or groups of users of a computer, application or network.
Audit Trail Capture and Analysis	Defines the set of capabilities that support the identification and monitoring of activities within an application or system.

Note: "*" denotes change to the reference model

SRM - capabilities that allow for the concurrent, simultaneous communication and sharing of content, schedules, messages and ideas within an organization;

Service Domain: Support Services	
Service Type: Collaboration defines the set of capabilities that allow for the concurrent, simultaneous communication and sharing of content, schedules, messages and ideas within an organization.	
Service Component	**Description**
E-mail	Defines the set of capabilities that support the transmission of memos and messages over a network.
Threaded Discussions	*Defines the set of capabilities that support the running log of remarks and opinions about a given topic or subject.*
Document Library	Defines the set of capabilities that support the grouping and archiving of files and records on a server.
Shared Calendaring	Defines the set of capabilities that allow an entire team as well as individuals to view, add and modify each other's schedules, meetings and activities.
Task Management	Defines the set of capabilities that support a specific undertaking or function assigned to an employee.

Note: "*" denotes change to the reference model

SRM - capabilities that support the probing and lookup of specific data from a data source;

Service Domain: Support Services	
Service Type: **Search** defines the set of capabilities that support the probing and lookup of specific data from a data source.	
Service Component	**Description**
Query*	Defines the set of capabilities that support retrieval of records that satisfy specific query selection criteria.
Precision Recall Ranking*	*Defines the set of capabilities that support selection and retrieval of records ranked to optimize precision against recall.*
Classification*	Defines the set of capabilities that support selection and retrieval of records organized by shared characteristics in content or context.
Pattern Matching*	Defines the set of capabilities that support retrieval of records generated from a data source by imputing characteristics based on patterns in the content or context.

Note: "*" denotes change to the reference model

SRM - capabilities that support the transmission of data, messages and information in multiple formats and protocols;

Service Domain: Support Services	
Service Type: Communication define the set of capabilities that support the transmission of data, messages and information in multiple formats and protocols.	
Service Component	**Description**
Real Time/ Chat	Defines the set of capabilities that support the conferencing capability between two or more users on a local area network or the internet.
Instant Messaging	*Defines the set of capabilities that support keyboard conferencing over a Local Area Network or the internet between two or more people.*
Audio Conferencing	Defines the set of capabilities that support audio communications sessions among people who are geographically dispersed.
Video Conferencing	Defines the set of capabilities that support video communications sessions among people who are geographically dispersed.
Event / News Management	Defines the set of capabilities that monitor servers, workstations and network devices for routine and non-routine events.
Community Management	Defines the set of capabilities that support the administration of online groups that share common interests.
Computer / Telephony Integration*	Defines the set of capabilities that support the connectivity between server hardware, software and telecommunications equipment into a single logical system.

Note: "*" denotes change to the reference model

SRM - capabilities that support the administration and upkeep of an organization's technology assets, including the hardware, software, infrastructure, licenses and components that comprise those assets;

Service Domain: Support Services	
Service Type: Systems Management defines the set of capabilities that support the administration and upkeep of an organization's technology assets, including the hardware, software, infrastructure, licenses and components that comprise those assets.	
Service Component	**Description**
License Management*	Defines the set of capabilities that support the purchase, upgrade and tracking of legal usage contracts for system software and applications.
Remote System Control*	*Defines the set of capabilities that support the monitoring, administration and usage of applications and enterprise systems from locations outside of the immediate system environment.*
System Resource Monitoring*	Defines the set of capabilities that support the balance and allocation of memory, usage, disk space and performance on computers and their applications.
Software Distribution*	Defines the set of capabilities that support the propagation, installation and upgrade of written computer programs, applications and components.

Note: "*" denotes change to the reference model

and SRM - capabilities that support the creation, modification and usage of physical or electronic documents used to capture information within the business cycle.

Service Domain: Support Services	
Service Type: Forms defines the set of capabilities that support the creation, modification and usage of physical or electronic documents used to capture information within the business cycle.	
Service Component	**Description**
Forms Creation*	Defines the set of capabilities that support the design and generation of electronic or physical forms and templates for use within the business cycle by an organization and its stakeholders.
Forms Modification*	*Defines the set of capabilities that support the maintenance of electronic or physical forms, templates and their respective elements and fields.*

Note: "*" denotes change to the reference model

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Service Area: Service Access and Delivery

Service Access and Delivery refers to the collection of standards and specifications to support external access, exchange, and delivery of Service Components or capabilities. This area also includes the Legislative and Regulatory requirements governing the access and usage of the specific Service Component.

Service Category	Service Standards	Service Specification
Access Channels	Web Browser	Internet Explorer, Netscape Communicator
	Wireless / PDA Devices	Palm Operating System, Blackberry, Pocket PC 2000, Pocket PC Phone Edition, Symbian Epoc
	Collaboration /Communications	Electronic Mail (E-mail), Facsimile (Fax), Kiosk
	Other Electronic Channels	System to System, Web Service, Uniform Resource Locator (URL)
Delivery Channels	Internet	N/A
	Intranet	N/A
	Extranet	N/A
	Peer to Peer (P2P)	N/A
	Virtual Private Network (VPN)	N/A
Service Requirements	Legislative / Compliance	Section 508, Web Content Accessibility, Security, Privacy: Platform for Privacy Preferences, Privacy: Liberty Alliance
	Authentication / Single Sing-on (SSO)	N/A
	Hosting	Internal (within Agency), External (ISP/ASP/First Gov)
Supporting Network Services	Supporting Network Services	Internet Messaging Access Protocol / Post Office Protocol (IMAP / POP3), Multipurpose Internet Mail Extensions (MIME), Simple Mail Transfer Protocol (ESMTP), T.120, H323, Simple Mail Transfer Protocol (SMTP), Simple Network Management Protocol (SNMP), Lightweight Directory Access Protocol (LDAP), Directory Services (X500), Dynamic Host Configuration Protocol, (DHCP); Domain Name System (DSN), Border Gateway Protocol (BGP), X.400
	Service Transport	Transport Control Protocol (TCP), Internet Protocol (IP), Hyper Text Transfer Protocol (HTTP), Hyper Text Transfer Protocol Secure (HTTPS), Wireless Application Protocol (WAP), File Transfer Protocol (FTP), IP Security (IPSEC)

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Service Area: Service Platform and Infrastructure

Service Platform and Infrastructure - refers to the collection of delivery and support platforms, infrastructure capabilities and hardware requirements to support the construction, maintenance, and availability of a Service Component or capabilities.

Service Category	Service Standards	Service Specification
Supporting Platforms	Wireless / Mobile	Java 2 Platform, Micro Edition (J2ME)
	Platform Independent	Java 2 Platform, Enterprise Edition (J2EE), Linux
	Platform Dependent	Windows 2000, Windows.NET, Mac OS X
Delivery Servers	Web Servers	Apache, Internet Information Server
	Media Servers	Real Audio, Windows Media Services
	Application Servers	N/A
	Portal Servers	N/A
Software Engineering	Integrated Development Environment (IDE)	WebSphere Studio, Visual Studio Visual Studio.NET
	Software Configuration	Version Management, Defect Tracking, Issue Management, Task Management, Change Management, Deployment Management, Requirements Management and Traceability
	Test Management	Functional Testing, Business Cycle Testing, Usability Testing (508 Testing), Performance Profiling, Load/Stress/Volume Testing, Security and Access Control Testing, Reliability Testing, Configuration Testing Installation Testing
	Modeling	Unified Modeling Language (UML), Case Management
Database / Storage	Database	Database 2 (DB2), Oracle, SQL Server, Sybase
	Storage	Network-Attached Storage (NAS), Storage Area Network (SAN)
Hardware / Infrastructure	Servers / Computers	Enterprise Server, Mainframe
	Embedded Technology Devices	Random Access Memory (RAM), Hard Disk Drive, Micro Processor, Redundant Array of Independent Disk (RAID)
	Peripherals	Printer, Scanner
	Wide Area Network (WAN)	Frame Relay, Asynchronous Transfer Mode (ATM)
	Local Area Network (LAN)	Ethernet, Token Ring, Virtual LAN (VLAN)
	Network Devices / Standards	Hub, Switch, Router, Network Interface Card (NIC), Transceivers, Gateway, Integrated Services Digital Network (ISDN), T1/T3, Digital Subscriber Line (DSL), Firewall
	Video Conferencing	N/A

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Service Area: Component Framework

Component Framework - refers to the underlying foundation, technologies, standards, and specifications by which Service Components are built, exchanged, and deployed across Component-Based, Distributed, or Service-Orientated Architectures.

Service Category	Service Standards	Service Specification
Security	Certificates / Digital Signatures	Digital Certificate Authentication, FIPS 186, Secure Sockets Layer (SSL)
	Supporting Security Services	Secure Multipurpose Internet Mail Extensions (S/MIME), Transport Layer Security (TSL), Web Services Security (WS-Security), Security Assertion Markup Language (WAML), Simple Key Management Protocol (SKIP), Secure Shell (SSH)
Presentation Interface	Static Display	Hyper Text Markup Language (HTML)
	Dynamic / Server-Side Display	Java Server Pages (JSP), Active Server Pages (ASP), Active Server. Net (ASP. Net)
	Content Rendering	Dynamic HTML (DHTML), eXtensible HTML (XHTML), Cascading Style Sheets (CSS)
	Wireless / Mobile / Voice	Wireless Markup Language (WML), XHTML Mobile Profile (XHTMLMP), Voice XML (VXML)
Business Logic	Platform Independent	Enterprise Java Beans (EJB), C, C++, JavaScript, Java Servlet (JSR 53), Java Portlet API (JSR 168), Web Services for Remote Portals (WSRP)
	Platform Dependent	Visual Basic, Visual Basic .Net (VB .Net), C-Sharp (C#), VB Script
Data Interchange	Data Exchange	XMI, XQuery, Simple Object Access Protocol (SOAP), Electronic Business using XML (ebXML), Resource Description Framework (RDF), Web Services User Interface (WSUI)
Data Management	Database Connectivity	Java Database Connectivity (JDBC), Open Database Connectivity (ODBC), Active Data Objects (ADO), Active Data Objects .Net (ADO . Net), Object Linking and Embedding/ Database (OLE/DB), Data Access Objects (DAO), DB2 Connector
	Reporting and Analysis	eXtensible Business Reporting Language (XBRL), Java Online Analytical Processing (JOLAP), Online Analytical Processing (OLAP), XML for Analysis

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Service Area: Service Interface and Integration

Service Interface and Integration - refers to the collection of technologies, methodologies, standards, and specifications that govern how agencies will interface (both internally and externally) with a Service Component. This area also defines the methods by which components will interface and integrate with back office / legacy assets.

Service Category	Service Standards	Service Specification
Integration	Middleware	Remote Procedure Call (RPC), Message-Oriented Middleware (MOM): IBM WebSphere MQ, Message-Oriented Middleware (MOM): Microsoft Message Queue (MSMQ), Database Access: PL/SQL, Database Access: ISQL/w, Database Access: OPEN ANSI SQL/92, Database Access: NET8, Transaction Processing Monitor, Object Request Broker (ORB): Common Object Request Broker Architecture (CORBA), Object Request Broker (ORB): Component Object Model (COM), Object Request Broker (ORB): Distributed Component Object Model (DCOM), Object Request Broker (ORB): Component Object Model + (COM+)
	Enterprise Application Integration	Business Process Management, Application Connectivity, Transformation and Formatting
Interoperability	Data Format / Classification	eXtensible Markup Language (XML), XML Linking Language (XLINK), Namespaces, Electronic Data Interchange (EDI)
	Data Types / Validation	Document Type Definition (DTD), XML Schema
	Data Transformation	eXtensible Stylesheet Language Transform (XSLT)
Interface	Service Discovery	Universal Description Discovery and Integration (UDDI)
	Service Description / Interface	Web Services Description Language (WSDL), Application Program Interface (API) / Protocol